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MASTER UNIT CLASSIFICATION STUDY

Initial Analysis

Denver Management Area

MASTER UNITS—

1. Middle Park
2. Eagle River
3. Blue River

Bureau of Land Management

COLORADO STATE OFFICE

Dennison National
Holyoke, MA 01041

DENVER, COLORADO 80225

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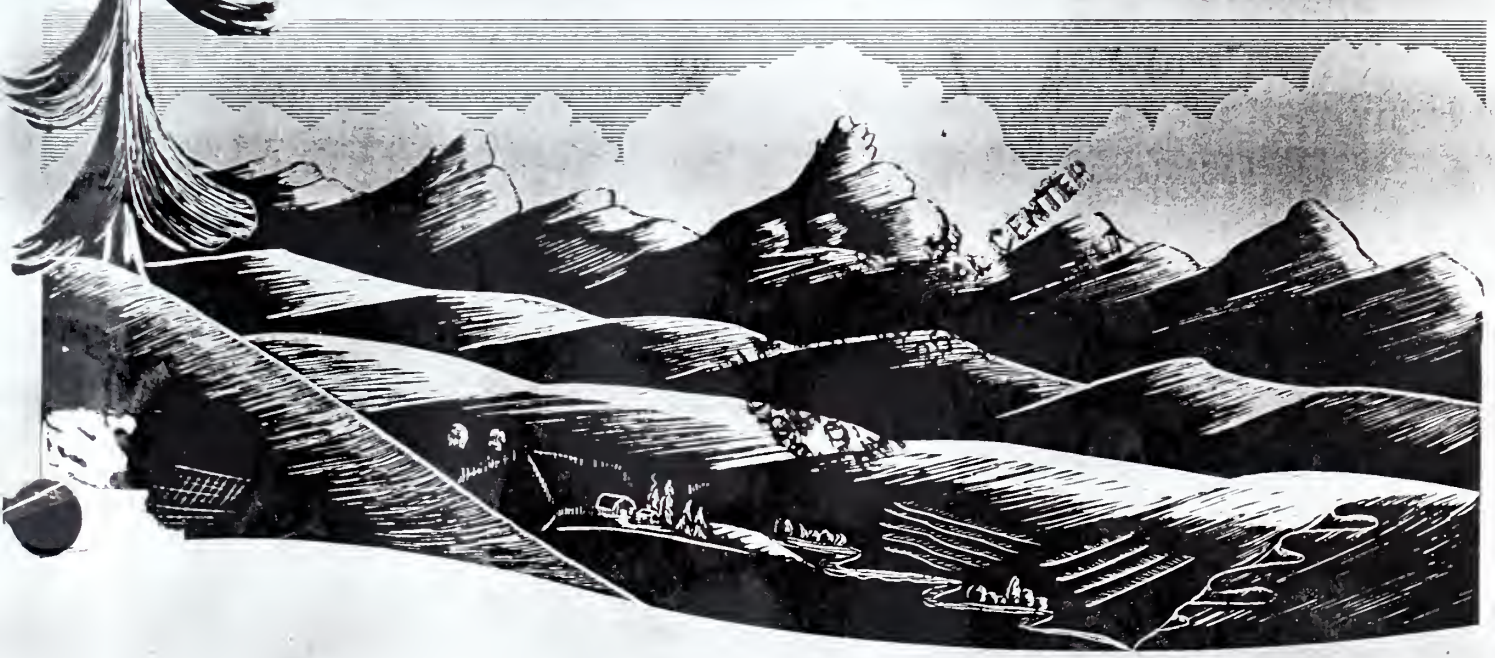

H. DeLano

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
COLORADO STATE OFFICE

MASTER UNIT CLASSIFICATION STUDY

INITIAL ANALYSIS

DENVER MANAGEMENT AREA

(MIDDLE PARK, EAGLE RIVER, AND BLUE RIVER MASTER UNITS)

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FOREWARD

This report is a study of the natural, economic and social characteristics of the Denver Management Unit to determine the role our National Land Reserve will play in the development and growth of the State's general economy.

The Middle Park Master Unit served as the testing ground for much of the methodology that is presented in Chapter 6.3, Volume V (Lands Manual), Bureau of Land Management. This manuscript departs slightly from the recommended map presentations but this was necessary to permit mass production of the manuscript for this stage of the Lands Programming. However, we feel that the presentation of related land use characteristics on transparent overlays is worthy of consideration because of the ease it will provide in correlating the associated variable factors involved in a proper analysis.

This report has been possible through the close cooperation of the Washington Staff, the Staff of the Missouri River Basin Classification Studies and the Colorado State and District Range and Forestry Personnel, and other agencies who have been most cooperative and helpful.

COLORADO GAME AND FISH DEPT. PHOTO

MASTER UNIT CLASSIFICATION STUDY

Initial Analysis

Denver Management Area
Master Units

I. Introduction

The three Master Units--(1) Middle Park, (2) Eagle River, and (3) Blue River--are somewhat similar in character, and form connected segments of a portion of the Upper Colorado River and its tributaries. These three units also include the major portion of the Denver Management Area and include three counties--Eagle, Grand and Summit--in their entirety. (See the attached map.) A small portion of Colorado District 1 and 6 were also added to include a contiguous block of public domain.

Since these three units are so closely related, they are first considered as a whole to determine the basic role of the vacant public domain involved and then considered separately in order that this basic conclusion might be most effectively applied.

The Denver Management Area (exclusive of the North Park segment) lies in north central Colorado in a large drainage basin bounded on the north and east by the Continental Divide. The basin is drained by the Colorado River and its well-known tributaries--the Williams Fork, the Fraser, the Blue and Eagle Rivers. The Colorado River originates at Grand Lake, a collection point for the drainages on the west slope of the Never Summer Mountains. Grand Lake, Shadow Mountain and Granby Reservoir comprise a very popular resort area and the west gateway to Rocky Mountain National Park.

There are 2,756,240 acres embraced by the three unit area: 1,423,191 acres (52%) in the National Forests; 362,469 acres (13%) in the National Land Reserve; 685,763 acres (25%) in private holdings; 92,393 acres (3%) in the National Park; and the remaining 7 percent in state, military reservation and local government lands.

The Granby-Grand Lake area is used heavily by the populace of Denver and other eastern slope communities for the extensive types of recreation. This area is also a favorite stop-over for many east-west bound tourists because of its close proximity to Rocky Mountain National Park and Denver.

The Denver Management Area is embraced by the Rocky Mountain physiographic region which is characterized by alpine areas, undifferentiated forested soils, high intermountain sagebrush parks and hills, and narrow valleys of irrigated crops and hayland. The private lands along the drainages are primarily used as base operations for ranchers utilizing the intermediately located sagebrush and pinon-pine covered public domain grasslands and the higher forest for summer range.

Large portions of the area are well adapted to multiple uses. The various vested interests--i.e., the mining industry, lumber industry, recreationist and certain conservation groups (with the exception of the livestock and wildlife factions)--are not, for the most part, in direct competition with each other for many of the natural resources of the areas.

Much of the incompatibility (when it exists) between primary land users in this district consists of on-site conflicts (competition for the spatial use of land) except for the livestock and wildlife enterprises. The wildlife (deer) enterprise is extended beyond its range of product complementarity, or even supplementarity, since the deer are destroying their own winter range in certain areas. This is not necessarily a deterioration of the range but a transition from the present browse species to grass. This vegetative change enhances cattle production, but definitely curtails the amount of browse available to the deer on certain critical winter ranges. Many experienced Range Conservationists maintain that the deer will actively compete for the grass resource when the browse is gone. This theory is substantiated in Montana by the presence of large deer populations on predominantly grassland vegetative types.

The wildlife management problem in this District is compounded by the abundance of summer range on the high mountain slopes and the lack of hunter access into the area to properly harvest the wildlife product.

II. Characteristics of the Public Domain

The National Forest lands lie around the perimeter of this area embracing generally the timbered and alpine areas. The public domain is interspersed with the deeded lands in the high intermountain sagebrush parks and hills and the irrigated meadows and cropland along the major drainages. It forms a relatively solid land pattern in the generally more precipitous and poorer quality sagebrush and pinon-pine sites in the lower (south western) portion of the study area. (See Land Use maps with each unit.)

In the North eastern and higher portion of the study area, the general agricultural productive character improves and the public domain is less concentrated, forming large isolated tracts or large blocks with extremely irregular land patterns.

III. Use of Basic Resources and their Relation to Surrounding Area

Water

Water is definitely the most limiting factor for future municipal and industrial development in the western states. Much of this resource, which is becoming increasingly more scarce, has already been allocated to agriculture. Dr. Nathaniel Wollman estimates that the demand for water in Colorado, New Mexico, Nevada, Utah and Arizona will have exceeded the dependable supply by 1980. 1/

NATIONAL LAND RESERVE WITHIN THE BUREAU OF LAND MANAGEMENT DEMONSTRATION AREA AT KREMMLING, COLORADO

LIVESTOCK GRAZING IS ONE OF THE MAJOR USES OF THE NATIONAL LAND RESERVE IN THE DENVER MANAGEMENT AREA

With the increasing demand for water approaching the limits of the present supply, it is apparent that the future allocation of this resource should be carefully considered. The maintenance of watersheds and drainages in good condition, and construction of on-site water control structures, can in effect increase the "effective" supply by minimizing erosion hazards and pollution, thereby insuring a high quality of water. Proper timber management and grazing practices will optimize runoff to insure the maximum quantity of high quality water.

We must consider that approximately 80 miles of the Colorado, 54 miles of the Blue, 30 miles of the Williams Fork, 24 miles of the Fraser, and 40 miles of the Eagle Rivers flow through that portion of the Grazing District embraced by this report. The Bureau of Reclamation has recorded an average annual flow of 2,140,000 acre-feet of water at Glenwood Springs, approximately 15 miles below the study area. This figure is acceptable as the aggregate flow of the total headwaters of the Colorado which are included in this study. This total includes 12.3 percent of the total Colorao River watershed water production as measured at Hoover Dam, and 12.0 percent of the total virgin flow of water into Mexico. 2/

Usually, the source of the drainages originate in the National Forests and are protected by conservative management practices on timber and vegetative types found at higher elevations. The public domain lands (interspersed with the private lands) embrace the lower portions of the drainage courseways. The public domain is dominantly sagebrush with an understory of grasses and forbs in the Middle Park Master Unit (1); and sagebrush and pinon-juniper (according to site) in the Eagle River Master Unit (2). The soils are subject to moderate sheet erosion on the sagebrush and pinon-juniper areas and severe on the sparsely covered and denuded areas. Many valleys have active cutting washes. (See Land Use Maps).

The grazing management and rehabilitation programs (see respective master unit studies for discussion of range rehabilitation and improvement projects) on the lands are extremely important as to the ability of the lands to yield unsilted waters to the main drainages. Some of the vacant public domain in this area has very unstable soil characteristics and is subject to a certain amount of geological erosion even under favorable circumstances because of the varying relief pattern.

Those public domain lands interlying between the National Forests and the major drainages are peculiarly vulnerable as a source of siltation. With 12 percent of the Colorado River's virgin flow originating in this basin, and flowing through (and some of this water flowing over) lands administered by this Bureau, it is imperative that our management policies and practices relfect our concern for the quality of water discharge into downstream water storage facilities.

Recreation and Wildlife

Hunters harvested 10,392 deer and 844 elk during the 1959 hunting season in Eagle, Grand and Summit Counties. It was estimated that 17,377 hunters utilized the facilities of the area. The "success ratio" of kill to number of hunters was .73 and .26 for deer and elk, respectively. 3/

It is likely that the big game-livestock production relationship has passed the range of supplementarity and is now in a competitive range. This view is substantiated by (1) the recent entry of the Colorado Game and Fish Department into the market to purchase ranch properties to extend the current supply of winter game ranges; (2) private clubs buying hunting and fishing rights on private property; and (3) the conversion of ranches into commercial hunting preserves (Denver area). This activity on the part of the Colorado Game and Fish Department and private individuals must be construed to manifest the public body's growing preference for additional recreation to the detriment of the displaced land use.

Calculations based on data supplied by the Colorado Game and Fish Department indicate that $2,526,271 were spent in Colorado by the 17,377 hunters using this area in 1959. If 60 percent of this total is spent for meals, lodging, entertainment and transportation, approximately $1,515,763 is probably spent in the immediate area. These figures do not include $292,207 in license fees directly attributable to the hunters using the area. 3/

In addition, the area is heavily used by fishermen and general recreationists. Statistics are not available indicating the exact or financial return from these activities. The area contains many spectacular vistas which are of increasing interest and enjoyment to the general public. Fourteen known sites having more than ordinary recreational potential have been identified in connection with the recreation area inventory.

The public domain's contribution to the recreation and wildlife use of the study area is significant. It provides much of the critical winter range for the big game that summer in the National Forests. Officials of the Denver Grazing District estimate that 66,000 deer and 1400 elk spend part of the season on the vacant lands in this area, and this herd is estimated to consume 70,340 animal units of forage each year on the public domain.

By contrast, it is significant to note that the Bureau of Land Management issued 148 grazing permits in this area for a total of only 30,735 animal units to the livestock operators in 1960.

Timber Production

The harvesting of timber plays a significant part in the economy of the three units. A majority of the volume cut comes from the Arapahoe, Routt and White River National Forests, as shown in the table below. These forests essentially bound the master units, except for those areas along the major drainages. (See "Pulpwood Opportunities Project Map" in folder.)

Timber Cut on National Forests in MBF
(Years Ended June 30)

	1955	1956	1957	1958	1959
Arapahoe	17,780	19,084	21,905	14,321	19,676
Routt	25,675	22,074	26,952	28,918	28,263
White River	15,437	15,533	15,604	14,655	14,380

Source: Bureau of Business Research, Colorado Basic Data Report No. 6, Timber; U.S. Department of Agriculture, Forest Service.

The Material Disposal Act of 1947 authorized for the first time the sale of timber and other forest products from the National Land Reserve. The Denver District, in which these Master Units are primarily located, has had an annual estimated cut of about 3 million feet during the past several years. Following completion of the forest inventory, it is anticipated that the annual cut will be increased materially. If the Crown-Zellerbach Corporation establishes its proposed pulp mill at Kremmling, it is further anticipated that this new demand, plus the opportunity for closer utilization and a market for trees of smaller diameter, will result in a cut of about 5 million board feet in the Middle Park area.

National Land Reserve forested lands in the Denver District are ideally located for near yearlong logging operations, since they are at elevations generally lower than the forested lands administered by the Forest Service. Timber on Bureau lands are in high demand by small operators as well as large operators who wish to log near yearlong. A great deal of the Forest Service timber lies at elevations so high that snow and mud conditions restrict logging operations generally to a six-month period. We feel that there will always be both a high demand and increasing interest for public domain timber in the Middle Park area.

The field phase of the inventory of the forest resources in the Denver District of the National Land Reserve is in the final stages of completion. We expect to be able to analyze data this winter and determine acreage, volumes, allowable cut, etc. Completion of this inventory and the required maps is a prerequisite in the forest management program as well as a tool in the analysis and classification of such lands.

The volume of commercial sawtimber on each of the Arapahoe, Routt and White River National Forests is shown below and is the best available for the immediate report. It will be replaced later to reflect the recent forest survey on such lands. It should be mentioned that certain undetermined volumes are not tributary to the Master Units.

Sawtimber on Commercial Forest Land
(in MBF)

	Arapahoe	Routt	White River
Softwoods			
Douglas fir	3,370	17,829	209,880
Ponderosa pine	61,792	58,277	-
True firs A/	27,434	254,606	476,798
Spruce B/	646,647	1,065,485	1,334,552
Lodgepole pine	723,014	1,564,925	593,485
Total softwoods	1,462,257	2,961,122	2,614,715
Hardwoods			
Aspen	5,386	125,209	114,636

Date of inventory - January 1, 1953

Note: A/ Including Alpine fir, Corkbark fir, White fir - but not Douglas.
B/ Including Engleman, Blue and other spruce.

Both the National Land Reserve and National Forest forested lands are being managed in accordance with the principles of sustained yield.

Livestock Grazing, Crop Production

The production of cultivated crops and the use of forage by domestic livestock are significant factors in the general economy of these units. However, there is little or no interrelationship between the units, so these factors are discussed in detail under their respective Master Unit presentations.

Industrial and Urban Development

With the exception of a planned paper plant at Kremmling, there is no evidence of expanding industrial or urban development pressures in this study area, with its attendant demand for privately owned land. The area around Kremmling will receive special treatment in the Middle Park Master Unit analysis.

Minerals

The mineral resources of the Middle Park, Eagle River and Blue River Master Unit areas include in one or another of the areas, locatable minerals, leasable minerals and mineral materials. All three Unit areas have at one time or another had production of locatable minerals. However, only the Eagle River and the Blue River areas had any recorded production of locatable minerals during 1959--the latest year for which complete figures are presently available. But all three areas recorded production of mineral materials in 1959. The potential for Leasing Act minerals in this 3-unit area does not appear too good on the basis of information at hand at this time.

All of the mining districts within these Master Units, and also the areas having the greatest potential for future discoveries of locatable minerals, lie within the National Forests and the Rocky Mountain National Park. The reason is that the Forests and the Park cover the high mountain areas which are also the areas containing most of the Precambrian Granites, gneisses and schists that are intruded by later igneous stocks and dikes which, in the disturbed (faulted and fissured) areas, were accompanied by mineralizing solutions that formed the famous ore deposits of Colorado.

At the time of writing this report the status and land classification overlay maps were not available to compare with the mineral classification overlay maps. Therefore, a comparison and analyzation of the relationships between mineral classification, land classification and land status cannot be presented. However, the overlay maps are included with this report and the comparisons and analyzations made during the conference.

Mineral production in each of the three Master Units contributed significantly to the economy of the respective unit during 1959 as follows: Middle Park Unit, $66,732; Eagle River Unit, $7,088,270+; Blue River Unit, $72,415.[4]

LODGEPOLE PINE IS THE PRINCIPAL COMMERCIAL TREE ON NATIONAL LAND RESERVE IN THE DENVER MANAGEMENT AREA

THIS SAWMILL IS THE PRINCIPAL INDUSTRIAL DEVELOPMENT AT KREMMLING, COLORADO, TRADE CENTER FOR A LARGE PORTION OF THE DENVER MANAGEMENT AREA

IV. General Conclusions

Several general conclusions can be drawn which can then be more specifically applied in the analysis of the individual Master Units. These include:

A. Optimum Water Production from this watershed is essential to maximize benefits from downstream Federal water storage projects. This type of water production will require a degree of resource use and management which may not be economically justified by agricultural returns from some of the lands involved enjoying poorer agricultural quality. Insofar as these poorer quality lands are public domain, it is in the public interest to retain them under Federal ownership in order that their use and management can be "subsidized", so to speak, in such a manner that downstream investments will return maximum returns. Private ownership of certain lands designated as critical for multiple use management is not in the best interests of the public welfare because the individuals' susceptibility to maximizing ranch income to the detriment of good management practices in (1) periods of economic distress, and (2) cases of limited tenure.

B. Wildlife use of the public domain is significant in many areas. Where this use is intensive enough to render livestock production economically unprofitable by itself, due to large involuntary allocations of forage to wildlife, private lands ownership cannot be expected to carry the burden and Federal landownership is in order. By the same token, the degree of wildlife use should be limited to a proper balance with other uses of the available forage, and Federal landownership is in order only where dictated after this balance is achieved.

C. There is no apparent demand for public land for intrusive use (urban, industrial, etc.) which cannot be met by private land, with the exception of possible needs in the vicinity of Kremmling.

D. There is a substantial demand for the use of this area by recreationists in general, for all types of recreational purposes. Consequently, and in accordance with Bureau policies, when public lands have potential and are proper (see E below) for this type of use, it will be proper to accommodate this demand through provisions of access, recreational facilities and retention of land.

E. In the title exchange areas, and possibly the residual areas, the existence of substantial acreages of national forest and national park land in this general area diminishes the importance of the vacant public domain's public use potential, insofar as contribution to the general public interest is concerned. Consequently, intensified multiple use management by the Bureau of Land Management can be justified only on these areas, such as the winter game range, which are not duplicated by the national forest or national park, and which have obvious and clear cut justification for management. There appreas to be no justification for the Bureau to attempt to duplicate or expand upon facilities already adequately provided by other Government agencies.

(In this conclusion we are discussing public lands of sufficient quality to be excluded from the watershed protection conclusion reached under A above.)

F. Legislation does not exist and is unlikely to be enacted which would authorize the Bureau to materially add to the existing acreage of public domain lands in the study area. Therefore, in the interest of good management, land tenure action should be directed toward improving the character and manageability of the resource to any extent possible.

G. The entire study area is virtually surrounded by national forest lands. In many places, especially along the Forest boundaries, land character is identical on both national forest land and public domain. Consequently, there is substantial opportunity and need for boundary adjustment to simplify management activities of both agencies.

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MASTER UNIT CLASSIFICATION STUDY

Initial Analysis

Denver Management Area
Master Units

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MIDDLE PARK MASTER UNIT

(DENVER MANAGEMENT AREA, UNIT NO. 1)

INITIAL ANALYSIS

1. INTRODUCTION

GENERAL AREA

MIDDLE PARK IS EMBRACED BY GRAND COUNTY ONLY AND IS ESSENTIALLY A HIGH MOUNTAIN PARK THAT IS PROTECTED FROM THE SEVERE WINTER WINDS BY THE SURROUNDING MOUNTAINS. IT IS ON THE HIGH, NORTH EASTERN END OF THE AREA IN THE PRECEDING STUDY.

THE COLORADO RIVER ORIGINATES AT GRAND LAKE ALONG THE EAST-CENTRAL BORDER OF GRAND COUNTY AND FLOWS SOUTHWESTERLY FOR APPROXIMATELY 45 MILES THROUGH THE MIDDLE PARK UNIT. GRAND COUNTY CONTAINS 1,186,560 ACRES, 549,840 ACRES OF WHICH ARE UNDER THE JURISDICTION OF THE FOREST SERVICE. THE BUREAU OF LAND MANAGEMENT ADMINISTERS ABOUT ONE-FIFTH (128,612 ACRES) OF THE REMAINING LANDS; 92,393 ACRES ARE IN ROCKY MOUNTAIN NATIONAL PARK AND SHADOW MOUNTAIN NATIONAL RECREATION AREA; 52,000 ACRES ARE STATE OWNED; AND 363,700 ACRES ARE PRIVATELY OWNED.

THE ACCOMPANYING LAND USE MAP OF GRAND COUNTY 4/ PORTRAYS THE GENERAL LAND USES AND VEGETATIVE TYPES. A CLOSE APPROXIMATION OF THE LANDOWNERSHIP PATTERN IN THIS AREA MAY BE OBTAINED BY REGISTERING THE BLUE ACETATE OVERLAY OVER THE LAND USE MAP. (REGISTRATION IS NOT PERFECT ON THIS SET OF OVERLAYS BECAUSE THE MAPS AND THE OVERLAYS ARE FROM DIFFERENT SOURCES. THIS CAN BE AVOIDED IN FUTURE PRODUCTION BY STARTING FROM THE SAME BASE.)

THE COUNTY IS SERVED BY U.S. HIGHWAYS 34 AND 40, AND MAJOR STATE HIGHWAYS 9, 84 AND 125. HIGHWAY 40 IS HEAVILY USED BY OUT-OF-STATE TOURIST TRAFFIC AND IS THE PRIMARY ALL-WEATHER ROUTE BETWEEN DENVER AND SALT LAKE CITY. (SEE GRAND COUNTY MAP--BROWN LINE.)

CLIMATOLOGICAL AND CROP DATA

THE GROWING SEASON AVERAGES 43 DAYS IN MIDDLE PARK AND THE ANNUAL MEAN TEMPERATURE IS 35.9 DEGREES. THE AVERAGE PRECIPITATION IS 19.14 INCHES ANNUALLY. 1/ THE SHORT GROWING SEASON AND SEMI-ARID CLIMATE LIMITS CROP PRODUCTION PRIMARILY TO PASTURE AND HAY ON IRRIGATED MEADOWS.

POPULATION

GRAND COUNTY IS SPARSELY POPULATED. THE NUMBER OF PEOPLE HAVE INCREASED ONLY SLIGHTLY IN THE LAST 20 YEARS FROM 3,587 TO A POPULATION OF 4,100 PERSONS IN 1957. THE PROJECTED 1970 POPULATION IS 5,300. 2/ HOWEVER, THIS POPULATION TOTAL IS AUGMENTED SUBSTANTIALLY DURING THE SUMMER BY TOURISTS AND RECREATIONISTS. GRANBY (POPULATION 463) AND KREMMLING (POPULATION 623), KNOWN LOCALLY AS THE "HEREFORD CAPITOL OF THE WORLD", ARE THE TWO LARGEST TOWNS IN THE COUNTY.

Grand Lake, a booming tourist town in the summer, is virtually deserted during the winter months. Highway 34 through the Rocky Mountain National Park is closed during the winter and access to Grand Lake is possible only via routes U.S. 40 and State Highway 125.

Economy

The county's economy is principally based on the livestock industry. The 1959 Census of Agriculture recorded 154 ranch units, 37 units less than the 191 recorded in the 1954 Census. There are 23,853 head of cattle on the farms and ranches in Grand County, and 9,504 of these are breeding cows. There are 10,454 head of sheep and lambs, 5,914 of which are breeding ewes. The value of livestock and livestock products sold in 1954 was $1,161,010. (This data not available for 1959 at time of printing.)

The manufacturing industry contributed $575,000 in wages and salaries and $864,000 in "value added by manufacturing" to the general economy in 1954. There were 30 manufacturing establishments in Grand County in 1960, two were newspapers, 20 were sawmills and planning mills, and eight were logging camps.

One-half of Arapahoe National Forest (529,561 acres) lies within Grand County and 19,676 MFB of timber was cut in the Forest in 1959. The proportion cut in Grand County only is not available. In addition, Grand County embraces 3.3 percent of the Routt National Forest (41,893 acres), and a total of 28,263 MBF of timber was cut in all of Routt National Forest in 1959.

The timber resources on the surrounding National Forest lands are shown on the "Pulpwood Opportunities Map". (see pocket). 5/ The proposed Bureau of Land Management timber management areas, lying adjacent to the forest boundaries, will be discussed in the individual Planning Areas.

Kremmling is also proposed as the site of a pulp mill by the Crown-Zellerbach Corporation. Initial surveys have been completed but construction on the plant has not commenced. Staffing of this mill will create a valid demand for small tract residence sites in the vicinity.

Specific values contributed by tourism and hunting are not available on a Unit basis at the time of this writing.

Recreation and Tourism

The Shadow Mountain Recreational Area was the most intensively used playground in Grand County, with a total of 1,024,550 visitors in 1959. The total number of visitors to the other facilities in Grand County was 478,720, or a total of 1,503,270 visitors for all facilities.

The location of specific recreation facilities and tourist accommodations are depicted on the recreation map at the end of this section. The number of visitors using the major recreational facilities of Grand County for the 1958-1959 period are given in Appendices A and B of this section.

NATIONAL LAND RESERVE WITHIN GRANBY DISPOSAL AREA NO. I PROVIDES LANDS SUITABLE FOR SMALL TRACT CABINSITE OR HOMESITE DEVELOPMENT

PRINCIPAL EAST - WEST LINES OF COMMUNICATION WITHIN THE HOT SULPHUR SPRINGS MANAGEMENT PROJECT ARE CONFINED TO BYERS CANYON BETWEEN HOT SULPHUR SPRINGS AND PARSHALL, COLORADO

The Bureau of Land Management has inventoried nine areas with varying degrees of recreation potential in the Middle Park Unit. These areas are listed below:

	Acres
T. 1 N., R. 76 W.	5,000
T. 1 N., R. 78 W., Section 9	200
T. 2 N., R. 76 W., Section 6	240
T. 2 N., R. 77 W., Section 25	10
Section 26	80
T. 2 N., R. 77, 78, and 79 W.	20,800
T. 2 and 3 N., R. 80 & 81 W.	33,000
T. 3 and 4 N., R. 80 W.	11,480
T. 1 S., R. 82 W., Section 5	40

Minerals

The Middle Park Unit area covers Grand County; so a discussion of the mineral classification and potential is essentially a discussion of the minerals of the County. During 1959 there was no recorded production of any locatable or leasable minerals. Mineral production consisted of 71,000 tons of sand and gravel valued at $63,000 and 423 tons of stone valued at $3,732. The records do not show the locations of production; however, there are a number of sand and gravel deposits in Grand County as shown on the minerals classification overlay map for that County. Because transportation costs are a big factor in sand and gravel production, we can assume that production was from deposits located close to population centers--the markets.

Leasing Act minerals' potential includes the Middle Park coal field, as shown on the Minerals Classification map, and the prospective values for oil and gas in the Middle Park Basin. Information at hand does not indicate whether or not there has been past production of oil, only that there has not been much exploration until recently. In 1959 three wells were drilled: Two were dry and abandoned and the third suspended drilling. Favorable reservoir rocks are considered to be the Cretaceous sandstones of the Pierre, Benton and Dakota formations and Jurassic sandstones of the Morrison and Entrada formations.

All the areas covered by igneous and metamorphic rocks of Precambrian Age, or later, are residual areas insofar as minerals classification is concerned and will require examination to determine their mineral character.

The two indicated mineral areas between Parshall and Kremmling, north of the Colorado River, contain formations bearing uranium mineralization as reported by the Atomic Energy Commission. Public Law 167 examinations in the same general area disclosed mining claims covering the same areas. Other small mineral deposits, such as clay and gilsonite, have been indicated on the map with appropriate symbols.

Of the four mining districts in Grand County, only two have a record of production. A 25-ton shipment of lead-silver-gold ore was sent to the Leadville smelter in 1931 from the Grand Lake district and lead-zinc-silver ores, carrying a little gold, were produced from veins in the La Plata district in 1935 and

during 1940 through 1943. The Monarch and Blue River districts are reported to contain some showings of copper mineralization.

II. The Role of the Vacant Public Domain in the Area

The land pattern of the public domain in the Middle Park Master Unit is shown on the Unit overlay. All of the public domain is under either Section 15 lease or Section 3 permit with the exception of several tracts reserved for exclusive wildlife use as winter range.

Extensive recreation, hunting, fishing and livestock grazing are the principal uses of the public land in this unit. Watershed protection, while important, is not as significant in this unit as further downstream due to better quality land and smaller, more fragmentary, expanses of public domain.

This unit is most accessible to Denver, only 100 miles away, and public pressures are likely to be heaviest in this area. Private recreational use is now being accommodated through the establishment of three small tract areas. Nine sites having public recreational value have been inventoried. A principal role for the vacant public domain is the provision of winter forage for the game herds, which are the recipient of much of Denver's hunting pressure.

Other portions of the public domain in this area are not proper for multiple use management by the Bureau. These public lands must be placed under an appropriate form of tenure which will best facilitate their use. This may be other Federal, state, or private tenure.

These areas on which intensive public uses not requiring Bureau management are paramount, must be carefully defined and given whatever management is necessary until an appropriate transfer can be made to the proper administrative organization.

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(Denver Grazing District, Unit No. 1)

1/ Colorado State Planning Division, Colorado Yearbook 1956-1958.
2/ Colorado State Planning Division Projection.
3/ Source: Annual Report 1959, Colorado Bureau of Mines.
4/ Local Area Statistics, Bureau of Business Research, University of Colorado, Boulder, Colorado.
5/ Pulpwood Opportunities Project Area Map, U. S. Forest Service Experiment Station, Colorado State University, Fort Collins, Colorado.

APPENDIX A

VISITS TO RECREATIONAL AND TOURIST FACILITIES, GRAND COUNTY [1]

FACILITY	UNITS	1955	1956	1957	1958	1959
Shadow Mtn. Nat'l Recreation Area	Persons	NA	NA	1,110,824	1,163,421	1,024,550
Winter Park [2] Ski Area	Persons	75,895	99,015	84,234	87,611	102,771
Berthoud [2] Ski Area	Persons	40,000	39,395	44,053	27,407	27,858
Granby Pumping Plant	Persons	3,622	3,742	3,983	4,094	4,447
Radium Baths	Persons	NA	NA	NA	NA	NA
Rocky Mtn. [3] Nat'l Park	Persons	NA	352,017	351,349	354,815	343,644
"	Autos	NA	100,730	98,341	99,602	97,466

***

VISITOR ACCOMMODATIONS, GRAND COUNTY [1]

	Motels	Hotels	Trailer Courts	Grand Total
Granby				
Est. or areas	31	4	7	42
Rooms or units	334	63	86	483
Grand Lake				
Est. or areas	51	6	6	63
Rooms or units	422	65	34	521
Fraser				
Est. or areas	2	1	1	4
Rooms or units	6	8	4	18
Hot Sulphur Springs				
Est. or areas	11	1	0	12
Rooms or units	109	18	0	127
Kremmling				
Est. or areas	15	2	0	17
Rooms or units	118	50	0	168
Total establishments or areas	110	14	14	138
Total rooms or units	989	204	124	1317

1/ Source: Bureau of Business Research and Local Officials.
2/ 1954-55; 1955-56; 1956-57; 1957-58; 1958-59 seasons--total visitors.
3/ Grand Lake entrance.
4/ Note: Includes only those commercial units or rooms classified as useful primarily by tourist trade or temporary visitors, excluding campgrounds.

APPENDIX B

NUMBER OF VISITORS BY PRIMARY PURPOSE TO NATIONAL FORESTS [1/]

ARAPAHOE NATIONAL FOREST, FRASER RANGER DISTRICT

	1955	1956	1957	1958	1959
CAMPING	10,000	7,000	10,000	5,000	4,000
PICNICKING	18,400	16,600	40,000	9,000	9,000
SWIMMING	0	0	0	0	0
WINTER SPORTS	66,940	79,000	84,456	74,000	100,000
HUNTING	2,105	1,000	1,000	1,000	1,000
FISHING	19,005	16,000	16,000	16,000	17,000
HIKING AND RIDING	2,100	2,000	2,000	1,960	1,000
CANOEING	1,000	0	0	0	0
ORGANIZATION CAMPING	400	400	300	300	1,000
WILDERNESS TRAVEL	0	0	0	0	NA
GENERAL ENJOYMENT AND SIGHTSEEDING	8,110	12,000	52,416	46,000	289,500
GATHERING FOREST PRODUCTS FOR PLEASURE	0	0	0	0	0
SCIENTIFIC STUDY AND HOBBIES	200	100	100	100	60
OTHER ACTIVITIES	0	0	0	0	5,500
TOTAL	128,260	134,100	206,272	153,360	428,060

ARAPAHOE NATIONAL FOREST, KREMMLING RANGER DISTRICT

CAMPING	2,700	3,500	4,000	3,000	3,500
PICKNICKING	2,600	4,000	4,300	5,000	5,800
SWIMMING	0	0	0	0	0
WINTER SPORTS	2,500	950	660	0	0
HUNTING	5,500	6,000	6,500	7,500	8,000
FISHING	9,600	10,500	11,500	11,500	12,000
HIKING AND RIDING	800	200	280	280	380
CANOEING	0	0	0	0	0
ORGANIZATION CAMPING	400	50	0	0	0
WILDERNESS TRAVEL	500	400	500	500	600
GENERAL ENJOYMENT AND SIGHTSEEING	1,000	2,250	3,000	3,000	3,500
GATHERING FOREST PRODUCTS FOR PLEASURE	110	20	20	20	20
SCIENTIFIC STUDY AND HOBBIES	120	30	50	50	50
OTHER ACTIVITIES	170	50	50	150	150
TOTAL	26,000	27,950	30,860	31,000	34,000

CONTINUED ON NEXT PAGE

APPENDIX B (CONTINUED)

ARAPAHOE NATIONAL FOREST, SULPHUR RANGER DISTRICT

	1955	1956	1957	1958	1959
CAMPING	4,900	5,100	4,600	4,400	4,800
PICNICKING	4,020	4,100	3,600	3,000	3,000
SWIMMING	0	0	0	0	0
WINTER SPORTS	0	50	50	50	50
HUNTING	3,650	3,600	3,500	2,500	3,500
FISHING	17,840	18,200	19,000	19,000	19,000
HIKING AND RIDING	2,780	2,850	2,500	2,200	2,500
CANOEING	0	0	0	0	0
ORGANIZATION CAMPING	0	0	0	0	0
WILDERNESS TRAVEL	0	0	0	0	0
GENERAL ENJOYMENT AND SIGHTSEEING	4,130	4,400	4,000	3,900	4,000
GATHERING FOREST PRODUCTS FOR PLEASURE	200	200	200	200	200
SCIENTIFIC STUDY AND HOBBIES	350	350	350	350	350
OTHER ACTIVITIES	0	0	0	0	0
TOTAL	37,870	38,850	37,800	35,600	37,400

ROUTT NATIONAL FOREST, GORE RANGER DISTRICT

CAMPING	6,500	6,800	10,000	14,000	57,542
PICNICKING	27,100	24,000	25,000	42,000	74,986
SWIMMING	0	0	0	0	0
WINTER SPORTS	1,400	1,400	1,200	100	100
HUNTING	1,810	1,800	1,900	1,900	1,950
FISHING	29,200	26,000	32,000	32,000	48,595
HIKING AND RIDING	4,000	4,000	3,000	2,800	3,000
CANOEING	0	0	0	0	0
ORGANIZATION CAMPING	0	0	0	0	0
WILDERNESS TRAVEL	0	0	0	0	0
GENERAL ENJOYMENT AND SIGHTSEEING	17,490	24,200	31,000	34,000	23,306
GATHERING FOREST PRODUCTS FOR PLEASURE	0	0	0	5	5
SCIENTIFIC STUDY AND HOBBIES	100	100	100	0	0
OTHER ACTIVITIES	0	0	500	320	25
TOTAL	87,600	88,300	104,700	127,125	209,509

1/ SOURCE: U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE.

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT NO. 1)

PLANNING AREA NO. 1

GRANBY DISPOSAL AREA
(2 PARTS A & B, TOTALING 10,480 ACRES)

THIS IS AN AREA HAVING A BASIC USE FOR LIVESTOCK GRAZING AND A SUPPLEMENTAL AND EXPANDING USE FOR BOTH PUBLIC AND PRIVATE INTENSIVE PURPOSES. A STRONG GROWTH IS NOTED IN DUDE RANCH DEVELOPMENT ALONG WITH WEEKEND TOURIST TRADE. (SEE APPENDICES A AND B)

THE PUBLIC DOMAIN INVOLVED CONSISTS MOSTLY OF ISOLATED TRACTS; WITHDRAWN LAND WHICH IS ENCOMPASSED BY THE SHADOW MOUNTAIN RECREATIONAL AREA, ADMINISTED BY THE NATIONAL PARK SERVICE; AND A FEW AREAS OF STOCK DRIVEWAY OR RECLAMATION WITHDRAWN LAND.

THE VACANT LANDS IN THE SECTIONS LISTED BELOW HAVE BEEN DESIGNATED BY THE DISTRICT MANAGER AS SUSTAINED YIELD TIMBER MANAGEMENT AREAS:

T. 3 N., R. 76 W., SECTIONS 1, 10, 12, 19, 20 AND 29
T. 2 N., R. 76 W., SECTIONS 22 AND 23
T. 1 N., R. 76 W., SECTIONS 31 AND 32
T. 1 S., R. 76 W., SECTIONS 6, 7, 8, 17, 18, 20, 21 AND 31
T. 1 S., R. 77 W., SECTIONS 1, 2 AND 35
T. 1 S., R. 75 W., SECTION 15

THE VACANT LAND IN SECTION 22, T. 3 N., R. 76 W., HAS BEEN CLASSIFIED UNDER THE SMALL TRACT ACT. FIFTY-NINE TRACTS WERE OFFERED INITIALLY AND THE 20 REMAINING TRACTS WILL BE REOFFERED AT PUBLIC AUCTION ON JUNE 29, 1961.

THE REMAINING PUBLIC LANDS DO NOT REPRESENT A SUFFICIENT PORTION OF THE TOTAL LAND AREA TO HAVE A SIGNIFICANT EFFECT ON THE LAND USE OF THE AREA. THE USE ON THESE PUBLIC LANDS DOES NOT WARRANT A BUREAU OF LAND MANAGEMENT MANAGEMENT PROGRAM. THE LANDS SHOULD BE SCHEDULED FOR FIELD EXAMINATION PURSUANT TO BUREAU DISPOSAL PROGRAM. THE LANDS DESIGNATED AS HAVING TIMBER CAPABILITIES SHOULD BE REFERRED TO THE DISTRICT MANAGER FOR PROPER JUSTIFICATION FOR INCLUDING THEM IN A SUSTAINED YIELD TIMBER MANAGEMENT PROGRAM.

IN VIEW OF THE ABOVE SITUATION, THE AREA IS CONSIDERED AS A DISPOSAL AREA. THE PUBLIC LAND INVOLVED WILL BE SCHEDULED FOR INVESTIGATION LOOKING TOWARD CLASSIFICATION FOR APPROPRIATE TITLE TRANSFER. LAND ADJUSTMENT EXCHANGE POSSIBILITIES EXIST BETWEEN THIS AND NEARBY LAND MANAGEMENT PROJECTS.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT No. 1)

PLANNING AREA No. 2

HOT SULPHUR SPRINGS LAND MANAGEMENT PROJECT

28,562 ACRES VACANT PUBLIC DOMAIN
2,000 ACRES WITHDRAWAL
30,652 ACRES TOTAL

THIS AREA IS BOUNDED ON THE NORTH BY THE ARAPAHOE NATIONAL FOREST AND THE COLORADO RIVER ON THE SOUTH. THE LANDS ARE PRIMARILY UTILIZED FOR LIVESTOCK GRAZING; HOWEVER, THERE ARE ALSO HEAVY CONCENTRATIONS OF DEER AND ELK USING THIS RANGE IN THE FALL AND WINTER.

THE LAND PATTERN IS BASICALLY PUBLIC DOMAIN WITH A FEW ISOLATED TRACTS OF PRIVATE LANDS STRATEGICALLY LOCATED ON THE MAJOR DRAINAGES AND WITH SEVERAL FINGERLIKE PROJECTIONS OF PRIVATE LAND ORIGINATING FROM PATENTED LANDS ON THE COLORADO RIVER.

THE AREA HAS BEEN DESIGNATED AS A RECREATIONAL AREA IN THE RECENT RECREATIONAL AREA INVENTORY. COGNIZANCE MUST BE MADE OF THE FACT THAT WILDLIFE FORCED FROM THE HIGH-TIMBERED SLOPES TO THE NORTH BY HEAVY SNOWS WILL USE THESE LANDS REGARDLESS OF LAND TENURE ARRANGEMENTS; CONSEQUENTLY, ANY MANAGEMENT PLAN FOR THE USE OF THIS RANGE MUST RECOGNIZE THIS PROBLEM. THIS POINT WAS REVIEWED IN GENERAL CONCLUSION B.

THE GREATER PORTION OF THE VACANT LAND IN THIS AREA LYING ADJACENT TO THE ARAPAHOE NATIONAL FOREST HAS BEEN DESIGNATED AS A TIMBER MANAGEMENT AREA. THE NATURE OF THE SOILS AND TOPOGRAPHY MAKE THE AREA SUSCEPTIBLE TO SEVERE EROSION HAZARDS IF PROPER RANGE CONDITION IS NOT MAINTAINED. THIS SITUATION IS DISCUSSED IN GENERAL CONCLUSION A. PRIVATE OWNERSHIP CANNOT BE EXPECTED TO SUPPORT THE LARGE POPULATIONS OF WILDLIFE AND ALSO MAINTAIN THE PROPER DEGREE OF RANGE CONDITION. CONSEQUENTLY, THIS IS DETERMINED TO BE A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT No. 1)

PLANNING AREA No. 3

FRASER RIVER LAND MANAGEMENT PROJECT

4680 ACRES VACANT PUBLIC DOMAIN
900 ACRES WITHDRAWAL
5580 ACRES TOTAL

THIS PLANNING AREA EMBRACES A SOLID BLOCK OF PUBLIC DOMAIN ADJOINING THE ARAPAHOE NATIONAL FOREST AND ISOLATED FROM THE REMAINDER OF THE MASTER UNIT BY THE FRASER RIVER.

THIS AREA HAS THE SAME GENERAL UTILITY AND CHARACTERISTICS AS THE HOT SULPHUR SPRINGS LAND MANAGEMENT PROJECT AND IS COMPLETELY EMBRACED BY A TIMBER MANAGEMENT AREA. ACCESS ROADS ARE CURRENTLY BEING PLANNED TO PROVIDE ACCESS TO THE AREA.

IT IS DETERMINED TO BE A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT No. 1)

PLANNING AREA No. 4

RESIDUAL MANAGEMENT AREA No. 1
(6060 ACRES VACANT PUBLIC DOMAIN)

THIS AREA ENCOMPASSES NUMEROUS LARGE BUT ISOLATED TRACTS OF VACANT PUBLIC DOMAIN, SOME WITH MERCHANTABLE TIMBER COVER. THESE TRACTS HAVE MULTIPLE USE PHYSICAL CHARACTERISTICS BUT THE PUBLIC DEMAND FOR MULTIPLE USE ON THESE LANDS IS LIGHT DUE TO THE SURROUNDING NATIONAL FOREST. THE USE AND PHYSICAL CHARACTERISTICS OF THESE TRACTS ARE SUCH THAT AT THE PRESENT TIME PRIVATE OWNERSHIP AND MANAGEMENT WOULD RESULT IN THE SAME UTILIZATION AND TREATMENT AS IS NOW PROVIDED BY THE BUREAU.

CLASSIFICATION OF THESE LANDS IS DIFFICULT AT THIS TIME, SINCE IT IS NOT KNOWN JUST WHAT PUBLIC DEMANDS MAY BE MADE OF THE AREA IN THE FUTURE AND THESE LANDS ARE SUSCEPTIBLE TO EFFECTIVE BUREAU MANAGEMENT. IN VIEW OF THIS, THE BUREAU'S PLANS FOR THE AREA CONTEMPLATE:

(A) NO BUREAU SPONSORED DISPOSAL PROGRAM.
(B) USE OF THESE LANDS AS EXCHANGE BASE, IF NECESSARY, TO IMPROVE LAND PATTERN IN ADJACENT LAND MANAGEMENT PROJECTS.
(C) INCLUSION OF PART OF THE AREA IN A TIMBER MANAGEMENT AREA IF WARRANTED BY THE ECONOMIC CONDITIONS OF THE UNIT.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT NO. 1)

PLANNING AREA NO. 5

RESIDUAL MANAGEMENT AREA NO. 2
(10,100 ACRES VACANT PUBLIC DOMAIN)

THIS IS A LARGE TRIANGULAR TRACT OF LAND BOUNDED ON TWO SIDES BY THE NATIONAL FOREST. IT HAS A COVER OF SAGE, LODGEPOLE PINE, AND SPRUCE. IT IS NOT A WATERSHED PROBLEM, AS EXPRESSED IN A OF THE GENERAL CONCLUSIONS. IT HAS SUBSTANTIAL POTENTIAL FOR HUNTING AND RECREATION, DUE TO SEVERAL EXCELLENT TROUT STREAMS AND THE USE OF THE AREA FOR DEER AND ELK RANGE.

WHILE THIS AREA HAS SUBSTANTIAL RECREATIONAL POTENTIAL, THE DEMAND FOR THIS POTENTIAL IS DOUBTFUL IN VIEW OF THE ADJACENT NATIONAL FOREST. THIS TRACT SEEMS MOST CLOSELY CONCERNED BY GENERAL CONCLUSIONS E, RELATING TO FOREST AND PARK LANDS; AND F, RELATING TO LACK OF LEGISLATIVE AUTHORITY LISTED PREVIOUSLY, AND AS SUCH IS DETERMINED TO BE A RESIDUAL MANAGEMENT AREA.

APPROVED:

NAME TITLE DATE

KREMMLING LAND MANAGEMENT PROJECT

UNAUTHORIZED DUMPING OF REFUSE ON NATIONAL LAND RESERVE CREATES AN UNSIGHTLY APPEARANCE AND INCREASES DANGER FROM FIRE

UNAUTHORIZED ADVERTISING DISPLAYS ON NATIONAL LAND RESERVE ALONG U.S. HIGHWAY 40

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT No. 1)

PLANNING AREA No. 6

KREMMLING LAND MANAGEMENT PROJECT

23,500 ACRES VACANT PUBLIC DOMAIN
4,960 ACRES WITHDRAWN PUBLIC LAND
28,460 ACRES TOTAL

THIS IS A BLOCK OF LAND APPROXIMATELY 13 MILES LONG AND 6 MILES WIDE IMMEDIATELY NORTH OF KREMMLING, COLORADO, THAT IS COMPRISED PRIMARILY OF VACANT AND WITHDRAWN PUBLIC DOMAIN. THE AREA HAS LARGE ACREAGES OF GRASS RESEEDINGS AND NUMEROUS SPRING AND EARTHEN TANK DEVELOPMENTS WHICH WERE AUTHORIZED UNDER THE RANGE IMPROVEMENT PROGRAM. THE AREA IS USED HEAVILY BY DEER AND ELK IN THE EARLY FALL AND LATER SPRING. CERTAIN SECTIONS OF THE AREA ARE CRITICAL WILDLIFE WINTER RANGES.

THE VEGETATION OF THE AREA IS PREDOMINATELY OF THE SAGEBRUSH TYPE WITH A FEW SMALL ISOLATED STANDS OF ASPEN AND SPRUCE ON SOME OF THE HIGHER RIDGES. THE NATURE OF THE SOIL, TOPOGRAPHY AND VEGETATION CONTRIBUTE TO A VERY SEVERE EROSION HAZARD IF PROPER RANGE CONDITION IS NOT MAINTAINED.

GENERAL CONCLUSION A, RELATING TO WATERSHED MANAGEMENT; B, RELATING TO WILDLIFE NEEDS; AND C, RELATING TO INTENSIVE USE ADJACENT TO KREMMLING, APPLY TO THIS PLANNING AREA. CONSEQUENTLY, IT IS DETERMINED TO BE A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT NO. 1)

PLANNING AREA NO. 7

HILL CREEK TITLE TRANSFER PROJECT
(8,600 ACRES VACANT PUBLIC DOMAIN)

THIS PLANNING AREA IS COMPOSED OF WIDELY SCATTERED TRACTS OF VACANT PUBLIC DOMAIN. THE AREA IS BOUNDED ON THE NORTH BY THE CONTINENTAL DIVIDE AND ON THE WEST BY THE ROUTT NATIONAL FOREST. THE LANDOWNERSHIP PATTERN IN THE AREA IS CHARACTERIZED BY LARGE BLOCKS OF STATE AND PRIVATELY OWNED LANDS. THE ELEVATION OF THE LANDS IS SUFFICIENTLY HIGH TO PRECLUDE THEIR DESIGNATION AS CRITICAL WILDLIFE WINTER RANGE. SUMMER WILDLIFE RANGE IS NO PROBLEM IN THIS AREA BECAUSE OF THE CLOSE PROXIMITY OF THE FORESTS.

THE LANDS ARE OF GOOD QUALITY AND NO EROSION OR WATERSHED PROBLEMS ARE ANTICIPATED.

THE BUREAU PROGRAMS CONTEMPLATED FOR THIS AREA INCLUDE:

(A) INCLUSION OF THE TIMBERED LANDS IN TIMBER MANAGEMENT AREAS IF JUSTIFIED BY THE PROGRAM SUBMITTED BY THE DISTRICT MANAGER;

(B) TITLE TRANSFER WITH SPECIAL EMPHASIS UPON USING THE REMAINING LANDS AS BASE IN NEGOTIATING STATE EXCHANGES AND LAND ADJUSTMENTS WITH THE FOREST SERVICE.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT NO. 1)

PLANNING AREA NO. 8

RESIDUAL MANAGEMENT AREA NO. 3

10,000 ACRES VACANT PUBLIC DOMAIN
4,000 ACRES WITHDRAWN
14,000 ACRES TOTAL

THIS AREA IS BOUNDED BY THE COLORADO RIVER ON THE NORTH AND THE BLUE RIVER ON THE WEST. THE WILLIAMS FORK RESERVOIR IS EMBRACED BY THE EAST PORTION OF THE AREA. THE STATUS OF THE LANDS IS APPROXIMATELY ONE-HALF PATENTED AND ONE-HALF VACANT AND WITHDRAWN. WILLIAMS FORK RESERVOIR AND ITS DRAINAGES RECEIVE CONSIDERABLE FISHING PRESSURE.

SOME OF THE FEDERALLY OWNED LANDS ARE ROUGH AND ROLLING HILLS WITH PREDOMINATELY SAGEBRUSH COVER. ON THESE HILLS, TOPOGRAPHY AND VEGETATION CONSTITUTE A DEFINITE EROSION HAZARD. GENERAL CONCLUSION A APPLIES. THE REMAINDER FORMS SEVERAL LARGE TRACTS FOR WHICH FUTURE PUBLIC NEED IS NOT CLEAR. NO PRESSURE FOR INTENSIVE PRIVATE USE OR DEVELOPMENT EXISTS ON THESE TRACTS.

IN FIEW OF THESE FACTORS, LAND TENURE ACTION WILL BE DEFERRED IN THIS AREA. IT IS DETERMINED THAT THIS AREA BE DESIGNATED A RESIDUAL MANAGEMENT AREA.

APPROVED:

NAME TITLE DATE

MIDDLE PARK MASTER UNIT

(DENVER DISTRICT UNIT NO. 1)

PLANNING AREA NO. 9

INSPIRATION POINT LAND MANAGEMENT PROJECT

9,560 ACRES VACANT PUBLIC DOMAIN
6,120 ACRES WITHDRAWN
15,680 ACRES TOTAL

THIS PROJECT EMBRACES A NUMBER OF VARIOUS SIZED TRACTS OF WITHDRAWN AND VACANT PUBLIC DOMAIN ALONG THE COLORADO AND BLUE RIVERS.

THIS PORTION OF THE COLORADO RIVER IS IN A VERY DEEP CANYON AREA SOUTHWEST OF KREMMLING, COLORADO, AND TERMINATING IN THE VICINITY OF RADIUM, COLORADO. APPROXIMATELY MIDWAY BETWEEN KREMMLING AND RADIUM IS AN OVERLOOK, PROVIDING AN IMPRESSIVE VIEW OF THE COLORADO RIVER CANYON FOR MANY MILES, KNOWN AS "INSPIRATION POINT". INSPIRATION POINT MARKS THE BEGINNING OF THE SHELF ROAD WHICH IS CUT OUT OF THE CANYON WALL AND PROVIDES A VERY SCENIC DRIVE OF THE CANYON.

THE AREA SUPPORTS LARGE HERDS OF WINTERING DEER, AND THE OPEN WATERS OF THE COLORADO RIVER PROVIDE SANCTUARY FOR MIGRATING WATERFOWL. THE STATE GAME AND FISH DEPARTMENT HAS ACQUIRED SOME PRIVATE LAND IN THIS AREA AND HAS A RECREATION AND PUBLIC PURPOSES ACT APPLICATION ON MUCH OF THE FEDERAL LAND IN THE CANYON PROPER.

A LARGE BLOCK OF VACANT LAND LYING ADJACENT TO THE ARAPAHOE NATIONAL FOREST HAS BEEN DESIGNATED FOR TIMBER MANAGEMENT. THE SHEEPHORN ACCESS ROAD WILL PROVIDE ACCESS TO THE TRACT.

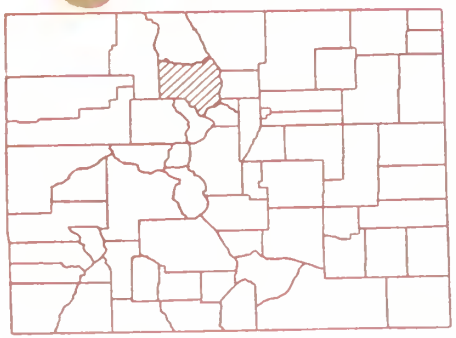
THE AREA IS SERVED BY A WELL-MAINTAINED GRAVEL ROAD. THERE IS SOME SPECULATION BY INFORMED SOURCES THAT THE ROAD WILL BE WIDENED AND BLACKTOPPED IN THE FORESEEABLE FUTURE.

GENERAL CONCLUSIONS B AND D REGARDING WILDLIFE AND RECREATION POTENTIAL APPLY AND THIS IS DETERMINED TO BE A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

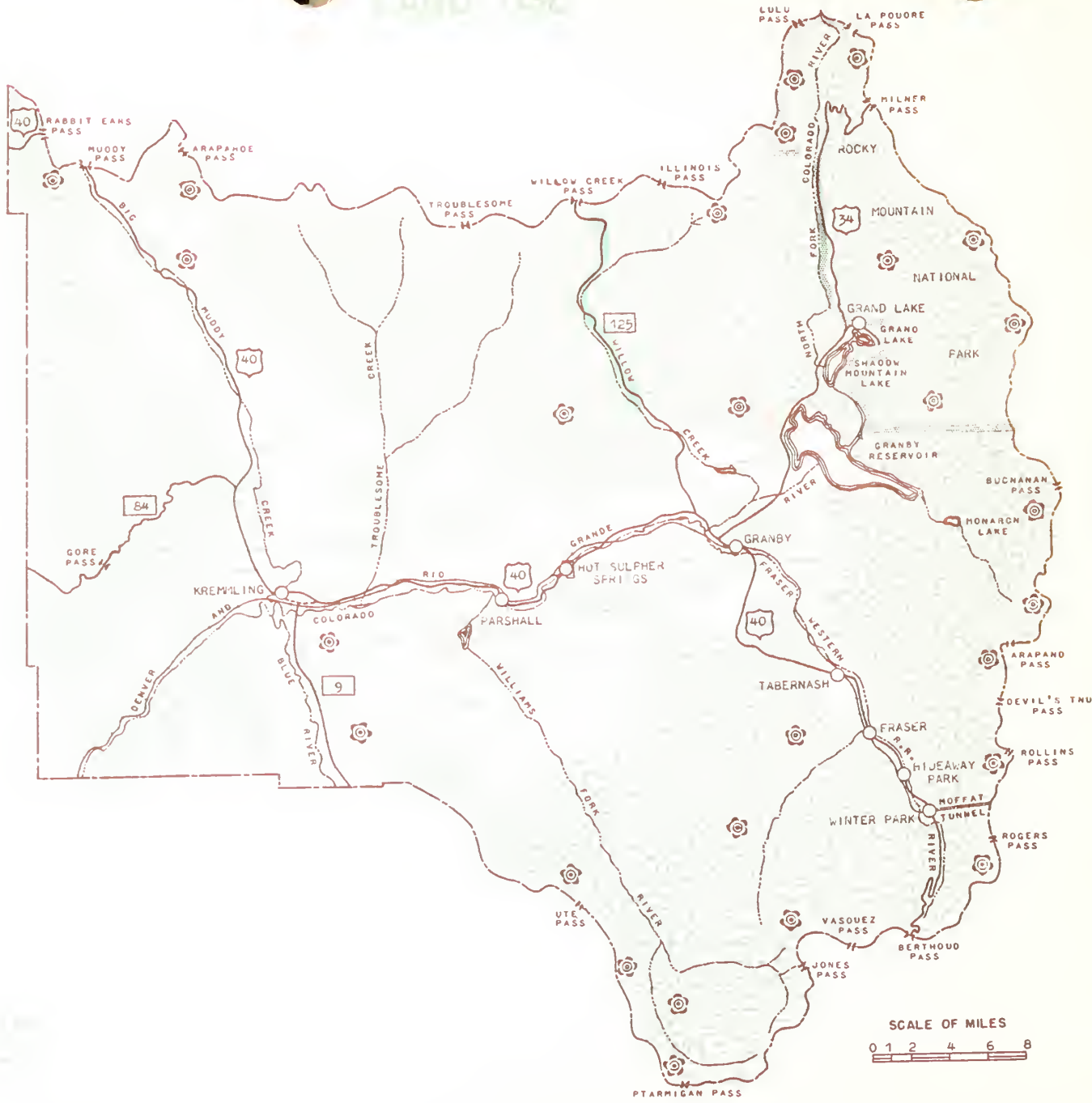
RAND COUNTY



STATE-COUNTY KEY

GENERAL LEGEND

- County Line
- Creek or River
- Major State or Federal Highway
- Secondary Road
- Railroad
- Mountainous Area



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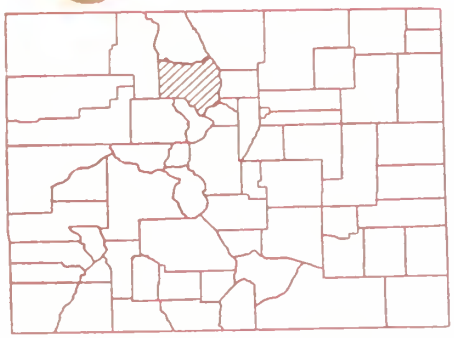
UNIVERSITY OF COLORADO, BOULDER, COLORADO

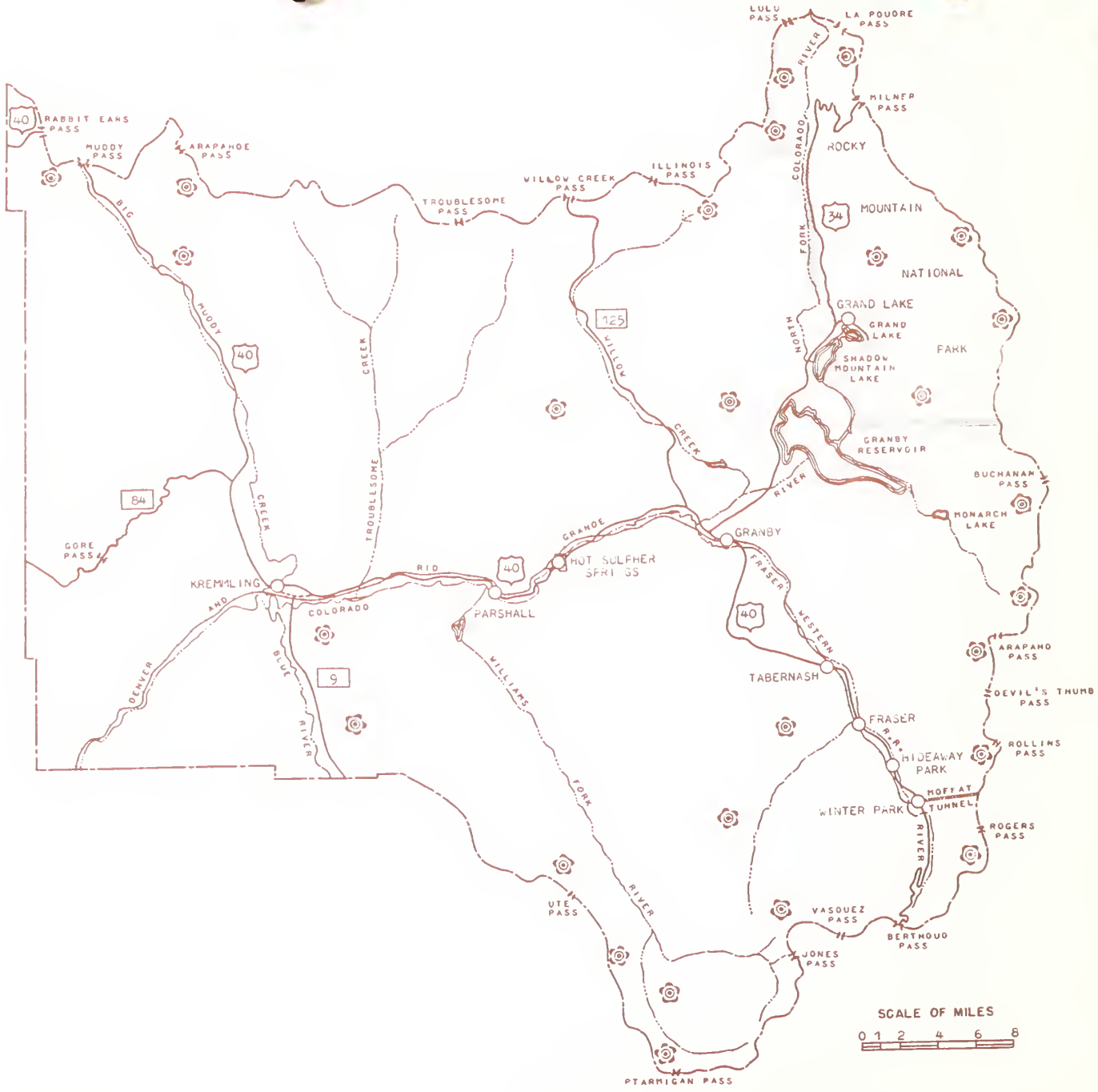
GRAND COUNTY



STATE-COUNTY KEY

GENERAL LEGEND

- County Line
- Creek or River
- Major State or Federal Highway
- Secondary Road
- Railroad
- Mountainous Area



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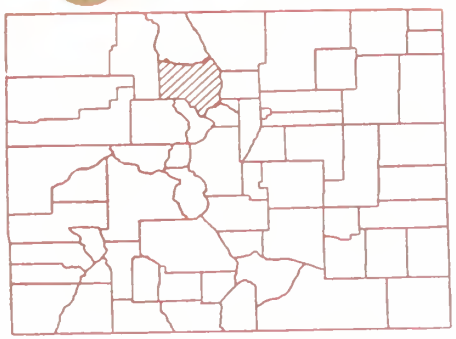
UNIVERSITY OF COLORADO, BOULDER, COLORADO

GRAND COUNTY TOURIST RESOURCES AND ACCOMMODATIONS



STATE-COUNTY KEY

GENERAL LEGEND

- County Line
- Creek or River
- Major State or Federal Highway
- Secondary Road
- Railroad
- Mountainous Area

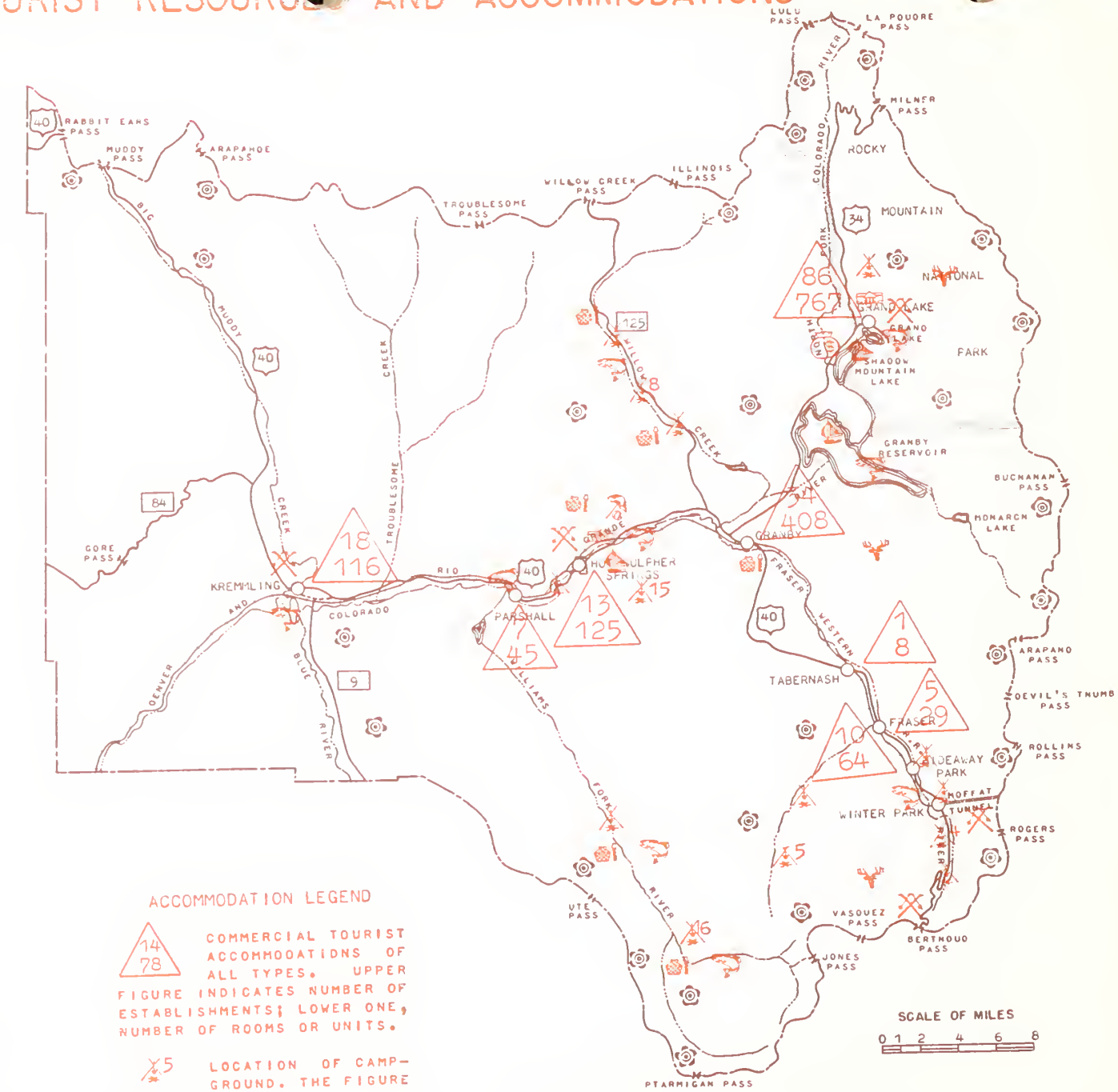
TOURIST RESOURCE LEGEND

- Fishing
- Hunting
- Camping
- Picnicking
- Skiing
- Swimming
- Boating
- Museum
- Paid Attraction

ACCOMMODATION LEGEND

14 / 78 — Commercial tourist accommodations of all types. Upper figure indicates number of establishments; lower one, number of rooms or units.

X5 — Location of campground. The figure indicates number of campsites.

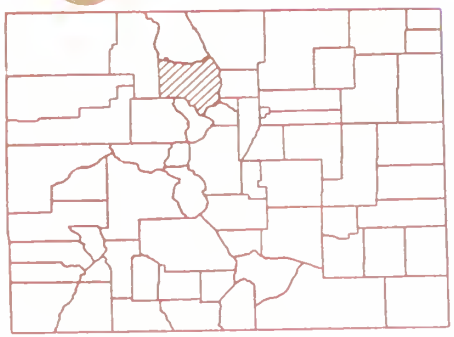


PREPARED FROM INFORMATION OBTAINED FROM THE U. S. FOREST SERVICE AND SIMILAR AGENCIES AND FIELD WORK UNDERTAKEN BY BUREAU STAFF.

PREPARED BY THE BUREAU OF BUSINESS RESEARCH

UNIVERSITY OF COLORADO, BOULDER, COLORADO

MINERAL RESOURCES AND MINING DISTRICTS



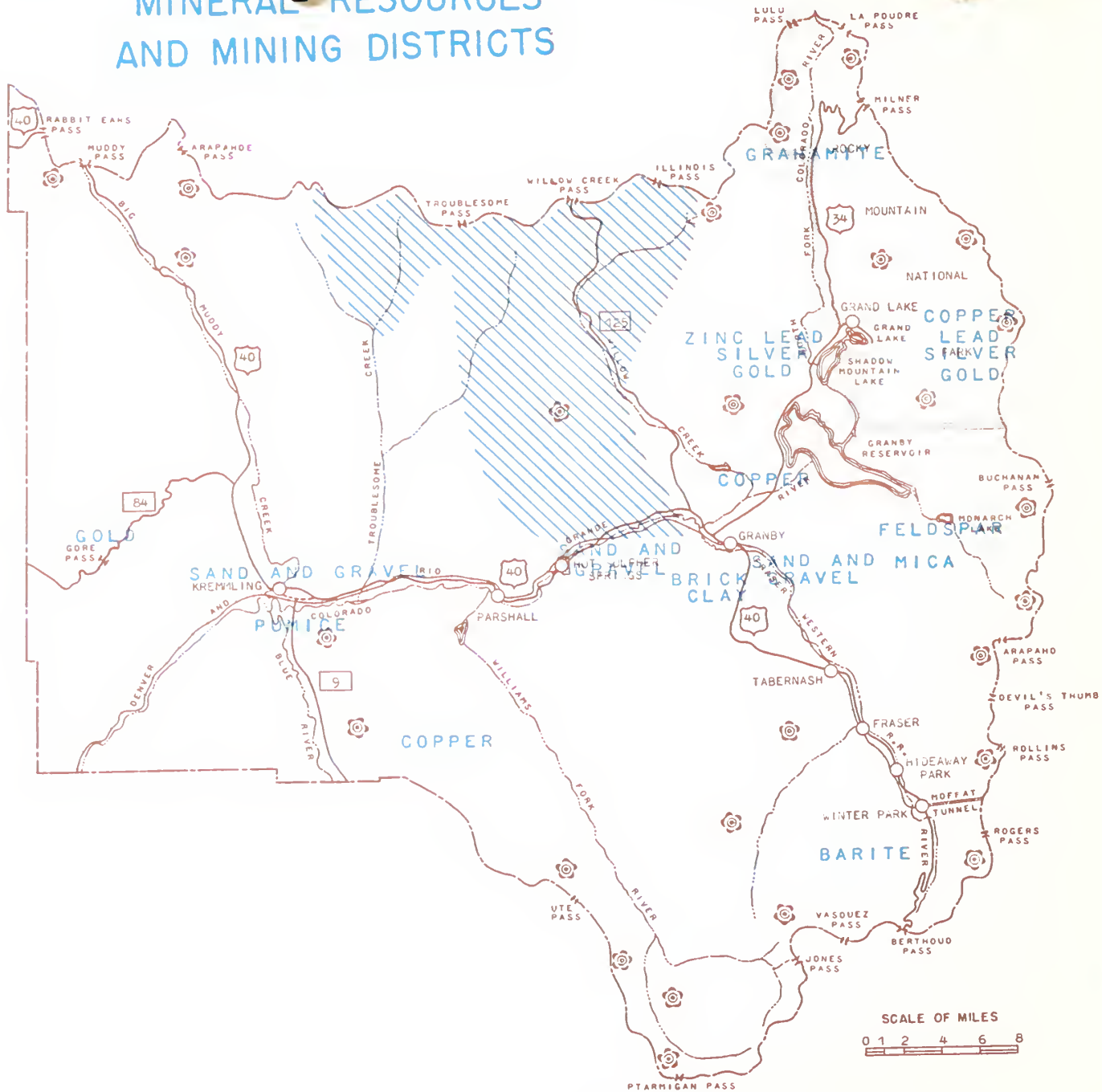
STATE-COUNTY KEY

GENERAL LEGEND

- County Line
- Creek or River
- Major State or Federal Highway
- Secondary Road
- Railroad
- Mountainous Area

FUEL LEGEND

- SUB-BITUMINOUS COAL



PREPARED FROM INFORMATION OBTAINED FROM THE STATE MINERAL RESOURCES BOARD, OIL AND GAS CONSERVATION COMMISSION, SCHOOL OF MINES, AND COAL MINE INSPECTOR.

PREPARED BY THE BUREAU OF BUSINESS RESEARCH

UNIVERSITY OF COLORADO, BOULDER, COLORADO

EAGLE RIVER MASTER UNIT

(DENVER MANAGEMENT AREA, UNIT NO. 2)

INITIAL ANALYSIS

I. INTRODUCTION

GENERAL AREA

THE EAGLE RIVER MASTER UNIT ENCOMPASSES THE ENTIRE EAGLE RIVER DRAINAGE BASIN AND THAT PORTION OF THE COLORADO RIVER DRAINAGE IN EAGLE AND ROUTT COUNTIES. THE UNIT ALSO EXTENDS WEST A HALF TIER OF TOWNSHIPS INTO GARFIELD COUNTY. HOWEVER, THE NATIONAL LAND RESERVE IS FOR THE MOST PART LOCATED IN EAGLE COUNTY.

THE UNIT INCLUDES ABOUT 1,178,000 ACRES: 1,079,000 ACRES IN EAGLE COUNTY, 74,000 ACRES IN ROUTT COUNTY AND 25,000 IN GARFIELD COUNTY. THE FOREST SERVICE ADMINISTERS 599,056 ACRES OF THESE LANDS; 219,764 ACRES ARE NATIONAL LAND RESERVE LANDS; 73,457 ACRES ARE IN MILITARY RESERVATIONS; 13,091 ACRES ARE STATE OWNED, AND 272,614 ACRES ARE PRIVATELY OWNED. (SEE LAND STATUS OVERLAY.)

THE LAND USE MAP 1/ OUTLINES THE GENERAL LAND USES AND VEGETATIVE TYPES. THE AREA IS GENERALLY CLASSIFIED AS MONTANE FOREST ON THE MOUNTAIN SLOPES AND MOUNTAIN VALLEY SITES, AND AS SUBALPINE FOREST IN THE HIGH MOUNTAIN PARK SITES. A NARROW BELT OF ROLLING UPLAND, FOOTHILL, AND MESA SITES ALONG THE COLORADO AND EAGLE RIVERS ARE PRESENTLY COVERED WITH PINON-JUNIPER. 2/ THE MORE LEVEL AREAS ALONG THE PERENNIAL WATERWAYS HAVE BEEN PLACED UNDER IRRIGATION. A TOTAL OF 34,235 ACRES WERE REPORTED UNDER IRRIGATION IN THE 1959 CENSUS OF AGRICULTURE.

THE UNIT IS SERVED BY U.S. HIGHWAYS 6 AND 24 AND MAJOR STATE HIGHWAYS 82, 91 AND 131. THE DENVER AND RIO GRANDE WESTERN RAILROAD FOLLOWS THE COLORADO RIVER THROUGH THE UNIT. (SEE BROWN LINE MAP OF EAGLE COUNTY)

CLIMATOLOGICAL AND CROP DATA

THE GROWING SEASON AVERAGES 68 DAYS AT EAGLE, COLORADO AND AS LOW AS 19 DAYS AT RED CLIFF IN THE SOUTHEAST CORNER OF THE UNIT. THE AVERAGE PRECIPITATION IS 11.2 INCHES ANNUALLY. 3/ THE MEAN ANNUAL TEMPERATURE IS 42 DEGREES WITH AN ABSOLUTE MAX-MIN RANGE OF 94° TO MINUS 46°. THE SHORT GROWING SEASON LIMITS AGRICULTURAL PRODUCTION PRIMARILY TO CEREAL GRAINS AND FORAGE CROPS. HOWEVER, THERE WERE ABOUT 400 ACRES OF POTATOES GROWN IN 1959 AND AN INSIGNIFICANT AMOUNT OF BERRIES AND FRUIT. 4/

POPULATION

THE POPULATION OF THE EAGLE RIVER UNIT DECREASED SLIGHTLY IN ABSOLUTE NUMBERS DURING THE PAST 20 YEARS (5,361 TO 4,677 PERSONS). THE CONTINUAL DECREASE IN POPULATION DURING THE PAST TWO DECADES HAS BEEN PRIMARILY DUE TO THE CONSOLIDATION OF FARMS AND RANCHES INTO LARGER UNITS AND THE CLOSING OF MANY SMALL MINE OPERATIONS SINCE WORLD WAR II. A HISTORICAL GROWTH RECORD OF THE MAJOR TOWNS IN THE UNIT ARE GIVEN IN THE TABLE BELOW:

HISTORICAL POPULATION GROWTH, EAGLE COUNTY

	County Total	Basalt	Eagle	Minturn	Redcliff	Gypsum
1960	4,677	454	546	662	586	358
1950	4,488	173	445	509	556	345
1940	5,361	212	518	596	715	245
1930	3,924	148	341	400	544	165
1920	3,386	185	352	298	347	164
1910	2,985	235	186	241	383	0
1900	3,008	382	124	0	256	76
1890	3,725	0	0	0	383	0

Source: U.S. Bureau of the Census, Census of Population, Various Issues. 1/

Economy

The Unit's economy is supported in large part by the mining industry. The value of mineral production was $7,074,747 in 1959. The other large contributor to the local economy was agriculture with a "value of products sold" totaling $1,824,411 in 1954. For detailed information concerning mineral production refer to Minerals on page 4.

The 744 jobs classified under Social Security are itemized in the table below according to type of work and number of workers:

AVERAGE COVERED EMPLOYMENT, EAGLE COUNTY

	1955	1956	1957	1958	1959
Mining	541	571	562	514	541
Cont. Construction	8	9	7	4	131
Manufacturing	34	34	43	55	56
Transportation:					
Communication and Util.	0	15	22	20	18
Wholesale and Retail	46	65	76	67	86
Finance, Insurance and Real Estate	9	9	9	9	9
Services	14	18	22	36	21
Total all Industries	652	721	741	705	862

Note: Those job classifications covered by Social Security; eight or more workers prior to 1956; four or more workers 1956 and beyond.

Source: Colorado State Department of Employment. 1/

The 1959 Census of Agriculture reported 20,744 head of cattle and calves, 49,374 sheep and lambs on the farms in the Unit. Of these animals, 9,048 were brood cows, and 39,041 were ewes one year and older. The value of livestock and livestock products sold in 1954 was $1,585,765. (1959 census data not available at time of printing.)

The average size farm and/or ranch has increased in size from 1,357 acres in 1954 to 1,783 acres in 1959. Correspondingly there has been a decrease in the number of units from 179 to 166 during the same period. The number of regular hired workers on farms in the Unit was 95 in 1959 (worked 150 days or more) with a total expenditure for all hired farm labor of $282,303.

The manufacturing industry paid $213,000 in wages and salaries in 1954 and provided for $437,000 in "value added by manufacture" to the general economy.

The types of manufacturing establishments in the Unit are shown in the following table:

NUMBER OF MANUFACTURING ESTABLISHMENTS
EAGLE COUNTY, 1960

	No.	Total
Food and kindred products		
Fluid milk	1	
Meat packing plants	1	2
Lumber and wood products (except furniture)		
Sawmills and planing mills	9	9
Printing, publishing, and allied industries		
Newspapers	1	1
Stone, clay, and glass products		
Minerals and earths ground or treated	2	2
Concentration mills and similar plants		
Lead and zinc mill	1	1
Grand Total Establishments		15

Source: Bureau of Business Research, 1960 Directory of Manufacturers

* * * *

The timber resources of the Unit have been discussed in the general discussion of the three units comprising this study. The amount of the Eagle River Unit embraced by parts of the adjacent National Forests is shown below:

NATIONAL FOREST ACREAGE WITHIN EAGLE COUNTY, 1957

	Arapahoe	White River	Total
Area within county in national forest land (acres)	607	635,878	636,485
Percent of entire forest within the county	.1%	31%	31.1%
Percent of total county area in national forest land	.1%	59%	59.1%

Source: Bureau of Business Research, Colorado Basic Data Report No. 6, Timber. U. S. Department of Agriculture, Forest Service.

Recreation and Tourism

The principal recreation attractions in the Eagle River Unit are fishing on the many mountain streams and hunting deer and elk on the National Forests and National Land Reserve (See Recreation Map)

The Colorado River Canyon between the mounth of the Eagle River and "Inspiration Point" contains many worthwhile scenic attractions. Access is provided by a well-maintained gravel road that parallels the Colorado River.

The Bureau of Land Management has inventoried 16 sites possessing certain recreation characteristics. The list is now being processed to determine the future disposition of the sites in order to achieve their best use.

The number of tourist accommodations available in the Unit are presented in Appendix A of this section according to the type of establishment and the number of visitors to the National Forests is classified according to the purpose of the visit in Appendix B.

Minerals

Those portions of this Unit falling in Routt and Garfield counties are classified as residual areas until more information regarding their mineral character is obtained. The remainder of the Unit area is covered by Eagle County and it will be so considered in this classification report. During 1959 the recorded mineral production for the county was as follows:

Mineral	Ounces	Value	Tons
Gold	2,824	98,840	
Silver	576,760	521,997	
Lead		655,569	2,850
Zinc		5,328,594	23,168
Copper		432,747	705
Sand & Gravel		37,000	45,000
Total		$7,074,747	

Additional mineral income included pyrite sold for mineral speciments $60; and volcanic scoria used for manufacture of lightweight building blocks and roofing aggregate valued at $13,463, making the total income from mineral production, $7,088,270. The previous and base metals production and the pyrite came from the Battle Mountain Mining District. The volcanic scoria came from the vicinity of Dotsero and Carbondale, but all from Eagle County. The sand and gravel was produced at undetermined locations but probably from deposits near centers of population such as Eagle, Gilman, etc.

The outlook for Leasing Act minerals at the present time is not too good. There are no known deposits at this time. Oil and gas have not yet been produced in the county. During 1959 no wells were drilled. However, the entire county, except for igneous areas along the east edge of the county and the southeast quarters of the county, may be considered as prospectively valuable for oil and gas. However, it seems to be an untested area; so anyone's guess is good until some wildcats have been put down and more information obtained.

JUNE 17, 1961
UPSTREAM SIDE OF
DILLON DAM

JUNE 17, 1961 - NORTHEAST ALONG THE AXIS OF THE DILLON RESERVOIR, UNDER CONSTRUCTION ON THE BLUE RIVER AT DILLON, COLORADO WHEN COMPLETED, THIS DAM WILL SUPPLY ADDITIONAL WATER TO DENVER VIA THE ROBERTS TUNNEL THROUGH THE CONTINENTAL DIVIDE. (1) LOCATION OF THE NEW TOWN OF DILLON. (2) BUREAU OF LAND MANAGEMENT DILLON SMALL TRACT AREA

THE MINING DISTRICTS, AND THOSE AREAS HAVING THE GREATEST POTENTIAL FOR THE DISCOVERY OF LOCATABLE MINERALS, FALL WITHIN THE NATIONAL FOREST AREAS. OF THE THREE MINING DISTRICTS SHOWN ON THE MINERALS CLASSIFICATION MAP, ONLY BATTLE MOUNTAIN HAD ANY PRODUCTION DURING 1959 OR RECENT YEARS. FULFORD HAD SOME EARLY PRODUCTION OF LEAD-SILVER ORE AND HOLY CROSS HAD SOME EARLY PRODUCTION OF GOLD-SILVER-LEAD ORE. ON THE COLORADO RIVER A SMALL MINERAL AREA IS SHOWN AS A RESULT OF SIX MINING CLAIMS LOCATED FOR BARITE. THE VALIDITY OF THE CLAIMS HAS NOT BEEN DETERMINED.

THERE ARE POTENTIALLY LARGE DEPOSITS OF THE COMMON VARIETY MINERAL MATERIALS, SUCH AS SAND, GRAVEL, CLAY, AND STONE IN THE COMMON SENSE OF THE WORDS. SAND AND GRAVEL DEPOSITS ARE DISTRIBUTED ALONG THE EAGLE RIVER, SOME OF ITS TRIBUTARIES AND THE ROARING FORK WHERE IT CROSSES THE SOUTHWEST CORNER OF THE COUNTY AS SHOWN ON THE MINERALS CLASSIFICATION MAP. MOST SHALE BEDS ARE POTENTIAL CLAY DEPOSITS AND SHALE OUTCROPS AND EXPOSURES ARE NUMEROUS IN THE COUNTY, PARTICULARLY IN THE AREA BETWEEN WOLCOTT AND STATE BRIDGE AND ALONG THE COLORADO RIVER. THERE ARE EXTENSIVE OUTCROPS OF SANDSTONE, LIMESTONE AND GRANITES THROUGHOUT THE COUNTY AND SMALLER DEPOSITS OF VOLCANIC CINDERS OR SCORIA AND PERLITE. IN ADDITION, THERE ARE EXTENSIVE SURFACE AND NEAR SURFACE DEPOSITS OF ROCK GYPSUM AND GYPSITE. AFTER STUDYING READILY AVAILABLE LITERATURE COVERING GYPSUM, IT IS THE OPINION OF SOME IN THE COLORADO STATE OFFICE THAT ROCK GYPSUM AND GYPSITE COME WITHIN THE PURVIEW OF SECTION 1 OF PUBLIC LAW 167 AND IS COVERED BY THE TERM "STONE". AS A RESULT, AND FOR THE PURPOSE OF DISCUSSION, THE AREAS CONTAINING ROCK GYPSUM DEPOSITS ARE INDICATED ON THE MAP. SPECIFIC OUTCROP AREAS HAVE BEEN INDICATED BY AN APPROPRIATE SYMBOL.

II. The Role of the Public Domain in the Area

THE LAND PATTERN OF THE NATIONAL LAND RESERVE (NLR) IN THE EAGLE RIVER UNIT IS SHOWN ON THE UNIT'S OVERLAY. THE OVERLAYS DEPICT THE RELATIONSHIP OF THE NLR TO THE BASIC RESOURCES OF THE UNIT.

LIVESTOCK GRAZING, HUNTING, FISHING, EXTENSIVE RECREATION AND LUMBERING ARE THE PRINCIPAL USES OF THE NLR IN THIS UNIT. WATERSHED PROTECTION IS VERY IMPORTANT BECAUSE THE SOILS OF THE UNIT AS A WHOLE ARE UNSTABLE AND THE VEGETATION IS MAINLY AN OPEN BRUSH TYPE.

PUBLIC ACCESS TO THE AREAS OF HEAVY DEER CONCENTRATIONS IS ONE OF THE IMPORTANT PROBLEMS ON THE NLR LANDS. GOOD PUBLIC ACCESS WILL PERMIT A MORE SYSTEMATIC HARVEST OF THE DEER HERDS AND CONSEQUENTLY BALANCE THE LIVESTOCK-DEER RATIO. THE PRINCIPAL ROLE OF THE NLR IS TO PROVIDE SUMMER GRAZING FOR THE LIVESTOCK INDUSTRY AND WINTER RANGE FOR GAME HERDS.

MOST OF THIS UNIT IS SUITABLE FOR MULTIPLE USE MANAGEMENT BY THE BUREAU. OTHER LANDS WILL BE PLACED IN THE PROPER TYPE OF LAND TENURE TO FACILITATE THEIR BEST USE. THIS TENURE MAY BE BY OTHER FEDERAL, STATE, OR PRIVATE AGENCIES.

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1/ Local Area Statistics, Bureau of Business Research, Univ. of Colorado, Boulder.
2/ Natural Vegetation of the State of Colorado, Map compiled by Arnold Heerwagen, SCS, 1953.
3/ U. S. Department of Commerce, Weather Bureau.
4/ Census of Agriculture, 1959, U. S. Dept. of Commerce.
5/ Report on Recreation Access, Denver District, Colorado, BLM

APPENDIX A

VISITOR ACCOMMODATIONS

EAGLE COUNTY

	Motels	Hotels	Trailer Courts	Total	Tourist Total*
Avon					
Est. or areas	2	0	0	2	2
Rooms or units	13	0	0	13	10
Basalt					
Est. or areas	9	1	2	12	12
Rooms or units	62	10	12	84	84
Bond					
Est. or areas	1	0	0	1	1
Rooms or units	10	0	0	10	10
Burns					
Est. or areas	3	0	0	3	3
Rooms or units	9	0	0	9	9
Eagle					
Est. or areas	5	1	1	7	5
Rooms or units	42	15	7	64	42
Gypsum					
Est. or areas	3	1	1	5	3
Rooms or units	23	8	8	39	23
Wolcott					
Est. or areas	1	1	0	2	2
Rooms or units	4	4	0	8	8
Total establishments or areas	24	4	4	32	28
Total rooms or units	163	37	27	227	186

*Includes only those commercial units or rooms classified as used primarily by tourist or temporary visitors.

Source: Bureau of Business Research and Local Officials[1/]

APPENDIX B

NUMBER OF VISITORS BY PRIMARY PURPOSE TO NATIONAL FORESTS

WHITE RIVER NATIONAL FOREST, EAGLE RANGER DISTRICT

	1955	1956	1957	1958	1959
CAMPING	150	150	300	1,000	1,025
PICNICKING	500	500	400	1,000	1,000
SWIMMING	0	0	0	0	0
WINTER SPORTS	0	0	0	300	300
HUNTING	4,050	4,000	7,000	10,000	14,000
FISHING	3,875	3,600	3,950	6,325	5,335
HIKING AND RIDING	150	150	200	300	300
CANOEING	0	0	0	0	0
ORGANIZATION CAMPING	25	25	25	25	25
WILDERNESS TRAVEL	30	20	20	150	80
GENERAL ENJOYMENT AND SIGHTSEEING	460	500	1,000	2,000	3,000
GATHERING FOREST PRODUCTS FOR PLEASURE	0	0	35	50	50
SCIENTIFIC STUDY AND HOBBIES	10	10	50	50	50
OTHER ACTIVITIES	35	5	0	0	0
TOTAL	9,285	8,960	12,980	21,200	25,165

WHITE RIVER NATIONAL FOREST, HOLY CROSS RANGER DISTRICT

CAMPING	4,600	5,200	4,700	5,500	5,740
PICNICKING	6,700	7,500	6,200	7,280	7,500
SWIMMING	0	0	0	0	0
WINTER SPORTS	100	100	100	100	200
HUNTING	1,200	1,500	1,000	1,500	1,500
FISHING	4,350	5,960	5,430	7,500	8,500
HIKING AND RIDING	500	700	500	1,000	1,000
CANOEING	0	0	0	0	0
ORGANIZATION CAMPING	0	0	100	220	240
WILDERNESS TRAVEL	0	100	80	100	100
GENERAL ENJOYMENT AND SIGHTSEEING	1,790	2,200	1,730	2,400	2,470
GATHERING FOREST PRODUCTS FOR PLEASURE	0	0	0	0	0
SCIENTIFIC STUDY AND HOBBIES	0	0	0	0	0
OTHER ACTIVITIES	600	530	0	790	1,000
TOTAL	19,840	23,790	19,840	26,390	28,250

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE 1/

APPENDIX B--CONTINUED

WHITE RIVER NATIONAL FOREST, FRYING PAN RANGER DISTRICT

	1955	1956	1957	1958	1959
CAMPING	3,200	4,000	4,300	4,750	5,875
PICNICKING	6,700	7,000	7,500	7,500	7,500
SWIMMING	400	500	500	500	500
WINTER SPORTS	100	0	0	0	0
HUNTING	1,130	1,200	1,200	1,500	1,800
FISHING	23,900	24,000	24,500	29,000	30,000
HIKING AND RIDING	760	1,000	1,000	1,000	1,000
CANOEING	400	0	0	0	0
ORGANIZATION CAMPING	0	200	250	250	275
WILDERNESS TRAVEL	0	0	0	0	0
GENERAL ENJOYMENT AND SIGHTSEEING	6,060	6,000	6,000	7,000	7,000
GATHERING FOREST PRODUCTS FOR PLEASURE	0	0	0	0	0
SCIENTIFIC STUDY AND HOBBIES	50	100	120	100	70
OTHER ACTIVITIES	200	1,000	1,000	650	1,755
TOTAL	42,900	45,000	46,370	52,250	55,775

SOURCE: U. S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE 1/

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT NO. 2)

PLANNING AREA NO. 10

KING MOUNTAIN LAND MANAGEMENT PROJECT

43,840 ACRES VACANT PUBLIC DOMAIN
9,160 ACRES WITHDRAWAL
3,920 STATE

56,920 TOTAL

THE KING MOUNTAIN PLANNING AREA IS LOCATED IN THE NORTHEAST CORNER OF THE UNIT AND ADJOINS PLANNING AREA NO. 9 OF THE MIDDLE PARK UNIT ON THE EAST. THE COLORADO RIVER TRAVERSES THE AREA ROUGHLY FROM NORTHWEST TO SOUTHEAST.

THE PREDOMINANT VEGETATIVE TYPES SOUTH OF THE RIVER ARE PINON-JUNIPER ON THE ROUGHT BREAKS ALONG THE RIVER AND ASPEN IN THE HIGHER COUNTRY. THERE IS A FAIR UNDERSTORY OF NATIVE GRASSES AND SHRUBS. THE VEGETATION IS RATHER SIMILAR BUT THE UNDERSTORY IS MAINLY SAGEBRUSH AND GRASS ON THE LANDS NORTH OF THE RIVER.

THE AREA IS INHABITED WITH LARGE HERDS OF MULEDEER THAT ARE SUPPLEMENTED WITH OTHER HERDS THAT COME DOWN FROM THE GORE RANGE TO WINTER IN THIS AREA EACH WINTER. THE RIVER IS WELL STOCKED WITH TROUT AND MANY GOLDEN EYED DUCKS WINTER ON THE OPEN WATERS OF THE RIVER.

LARGE NUMBERS OF HUNTERS FREQUENT THE AREA BUT THE DEMAND IS MUCH LESS THAN THE POTENTIAL. MUCH OF THE AREA IS INACCESSIBLE, BUT IT COULD BE MADE AVAILABLE WITH THE CONSTRUCTION OF ADDITIONAL ROADS FROM THE RIVER.

KING MOUNTAIN IS THE SITE OF A DISTRICT TIMBER SALE AND THE AREA IS DESIGNATED AS A TIMBER MANAGEMENT AREA.

THE DISTRICT HAS CONSTRUCTED A GREAT NUMBER OF DAMS AND DEVELOPED MANY SPRINGS FOR STOCKWATER IN THE GENERAL AREA SOUTH OF THE RIVER AND THE AREA NORTH OF STATE BRIDGE. THESE WATER DEVELOPMENTS GREATLY ENHANCE THE PROPER DISTRIBUTION OF LIVESTOCK ON THESE RANGES.

THE $3\frac{1}{4}$ TOWNSHIPS OF SECTION 15 LANDS IN ROUTT COUNTY (CRAIG DISTRICT) THAT ARE INCLUDED IN THIS PLANNING AREA (SEE ACETATE OVERLAYS) FORM AN INTEGRAL PART OF THIS MANAGEMENT UNIT. IT IS PROPOSED THAT THE DISTRICT BOUNDARIES BE CHANGED TO TRANSFER THESE LANDS TO THE DENVER DISTRICT AS SECTION 3 LANDS. THIS PROPOSITION IS NOW BEING CONSIDERED AT THE DISTRICT LEVEL.

IT IS DETERMINED THAT THE KING MOUNTAIN PLANNING AREA IS A LAND MANAGEMENT PROJECT. THE BUREAU'S PLANS FOR THE AREA INCLUDE:

(A) NO BUREAU SPONSORED DISPOSAL PROGRAM;
(B) TIMBER RESOURCES INVENTORY;

(c) Change of District boundaries to transfer the affected Section 15 lands in Routt County into the Denver Management Unit;

(d) Negotiation with the Colorado Fish and Game Commission to develop the hunting potential of the area and balance big game and livestock use.

Approved:

Name	Title	Date

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT No. 2)

PLANNING AREA No. 11

W MOUNTAIN LAND MANAGEMENT PROJECT

21,040 ACRES VACANT PUBLIC DOMAIN
3,920 ACRES WITHDRAWAL
24,960 ACRES TOTAL

THE W MOUNTAIN PLANNING AREA IS BOUNDED ON THE NORTH AND THE WEST BY THE WHITE RIVER NATIONAL FOREST, AND ON THE EAST BY THE COLORADO RIVER. PLANNING AREA No. 12 ADJOINS ON THE SOUTH.

THIS SECTION OF THE COLORADO RIVER WITH ITS TOWERING BEAUTIFULLY HUED CANYON WALLS, IS DEFINITELY ONE OF THE MORE SCENIC ATTRACTIONS ALONG THE HEADWATERS OF THE COLORADO RIVER.

THE TERRAIN SLOPES STEEPLY FROM THE BLUFFS OVERLOOKING THE COLORADO RIVER TO W MOUNTAIN IN THE NORTHWEST CORNER OF THE AREA. THE LOWER COUNTRY NEAR THE RIVER IS PREDOMINANTLY PINON-JUNIPER VEGETATION TYPE, GRADING INTO OAKBRUSH AND MOUNTAIN BROWSE ON THE INTERMEDIATE SLOPES, WITH DOUGLAS FIR AND ASPEN IN THE MAIN DRAWS. THE HIGHER COUNTRY IS COVERED WITH A LARGE STAND OF DEAD ENGELMANN SPRUCE. IT IS ESTIMATED THAT MORE THAN 3 MILLION BOARD FEET OF TIMBER WAS KILLED IN THE BARK BEETLE EPIDEMIC OF 1954. 5/

THE AREA UNDER THE W MOUNTAIN HAS BEEN DESIGNATED AS A TIMBER MANAGEMENT AREA. RANGE IMPROVEMENTS INCLUDE A SMALL RESEEDING AND FOUR SPRING DEVELOPMENTS.

THIS AREA HAS THE HEAVIEST CONCENTRATIONS OF MULEDEER IN THE DENVER DISTRICT AND ALSO SUPPORTS AN ELK HERD IN THE HIGHER COUNTRY. THE RIVER AND MANY SMALL MOUNTAIN LAKES OFFER UNTAPPED FISHING POSSIBILITIES. THE WILDLIFE AND FISH RESOURCES HAVE NOT BEEN HARVESTED IN THE PAST DUE TO THE LACK OF PUBLIC ACCESS. EVERY ROAD INTO THE AREA REQUIRES THE USE OF SPECIALIZED EQUIPMENT. THE MAIN ROAD IS CLOSED TO PUBLIC ACCESS AND POTENTIAL CLOSURE EXISTS ON ALL ROADS SINCE THEY CROSS PRIVATE LANDS.

IT IS DETERMINED THAT THE W MOUNTAIN PLANNING AREA IS A LAND MANAGEMENT PROJECT. THE BUREAU'S PLANS FOR THE AREA INCLUDE:

(A) INVESTIGATION TO DETERMINE IF THE BEETLE-KILLED TIMBER SHOULD BE OFFERED FOR SALE. ACCESS MAY BE IMPROVED WITH THE CONSTRUCTION OF TIMBER ACCESS ROADS;

(B) COOPERATE WITH COLORADO GAME AND FISH COMMISSION TO BALANCE THE BIG GAME-LIVESTOCK USE OF THE VEGETATIVE RESOURCE.

(C) NO BUREAU-SPONSORED PROGRAMS OF DISPOSAL.

APPROVED:

NAME TITLE DATE

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT NO. 2)

PLANNING AREA NO. 12

DEEP CREEK LAND MANAGEMENT PROJECT

14,690 ACRES PUBLIC DOMAIN
5,640 ACRES WITHDRAWAL

20,330 TOTAL

THE DEEP CREEK PLANNING AREA IS BOUNDED BY THE COLORADO RIVER ON THE EAST AND SOUTH, THE WHITE RIVER NATIONAL FOREST ON THE WEST, AND PLANNING AREA NO. 11 ON THE NORTH.

THE TERRAIN SLOPES TO THE WEST AND IS VERY STEEP AND ROUGH. DEEP CREEK FLOWS WEST TO EAST THROUGH THE CENTER OF THE AREA. THE MAIN TYPE IS PINON-JUNIPER BROKEN BY SEVERAL LARGE AREAS OF OAK BRUSH AND MOUNTAIN BROWSE. SAGEBRUSH AND NATIVE GRASSES THRIVE ON THE SOUTHWEST EXPOSURES. 5/

THE DEER FROM THE HIGHER FOREST LANDS WINTER IN THIS AREA AND GOOD FISHING IS AVAILABLE IN THE COLORADO RIVER AND DEEP CREEK. THE AREA IS UTILIZED VERY LIGHTLY BY THE PUBLIC DUE TO THE LACK OF ROADS.

RANGE IMPROVEMENTS IN THE AREA INCLUDE TWO STOCKWATER DAMS AND THREE SPRING DEVELOPMENTS.

IT IS DETERMINED THAT THE AREA IS A LAND MANAGEMENT PROJECT FOR THE MULTIPLE-USE MANAGEMENT OF THE LIVESTOCK, WILDLIFE AND RECREATION RESOURCES.

APPROVED:

NAME TITLE DATE

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT NO. 2)

PLANNING AREA NO. 13

RED HILL LAND MANAGEMENT PROJECT

19,920	ACRES PUBLIC DOMAIN
3,920	ACRES WITHDRAWAL
640	ACRES STATE
24,480	TOTAL

THE RED HILL PLANNING AREA IS LOCATED IN THE SOUTHWEST CORNER OF THE UNIT AND IS BOUNDED ON THE NORTH BY THE COLORADO RIVER AND THE EAGLE RIVER. GYPSUM CREEK PROVIDES A CONVENIENT EAST BOUNDARY AND THE WHITE RIVER NATIONAL FOREST IS ON THE WEST. THE SOUTH ADJOINS THE GRAND JUNCTION LAND MANAGEMENT UNIT.

THE AREA IS COMPRISED OF AN ALMOST SOLID BLOCK OF NATIONAL LAND RESERVE LANDS THAT ARE PRIMARILY COVERED WITH PINON-JUNIPER AND SAGEBRUSH VEGETATION. THE AREA IS CONSIDERED TO BE DEER WINTER RANGE.

RANGE IMPROVEMENTS IN THE AREA CONSIST OF SEVERAL STOCKWATER DEVELOPMENTS AND A TRUCK TRAIL TO SERVICE THEM.

IT IS DETERMINED THAT THE AREA IS A LAND MANAGEMENT PROJECT AND THE BUREAU'S PLANS IN THE AREA INCLUDE:

(A) NO PROGRAMS OF DISPOSAL OTHER THAN WHAT MAY BE CONVENIENT TO IMPROVE THE LANDOWNERSHIP PATTERN;

(B) RANGE RESOURCE DEVELOPMENT AS CONSIDERED FEASIBLE BY THE DISTRICT MANAGER.

APPROVED:

NAME TITLE DATE

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT No. 2)

PLANNING AREA No. 14

TRAIL GULCH LAND MANAGEMENT PROJECT

45,080 ACRES PUBLIC DOMAIN
5,400 ACRES WITHDRAWAL
640 ACRES STATE

51,120 TOTAL

THE TRAIL GULCH PLANNING AREA IS BOUNDED ON THE WEST BY THE COLORADO RIVER, ON THE SOUTH BY THE EAGLE RIVER, AND ON THE EAST AND NORTH BY A STRIP OF PRIVATE LANDS.

THE TERRAIN RISES STEEPLY FROM THE RIVERS AND THE AREA IS COVERED WITH SPARSE STANDS OF PINON-JUNIPER ON THE SLOPES AND SAGEBRUSH AND NATIVE GRASSES ON THE DRY MOUNTAIN PARKS. THERE IS ESTIMATED TO BE 3/4 MILLION BOARD FEET OF DOUGLAS FIR AT THE HEAD OF POSEY CREEK.

THERE ARE LARGE NUMBERS OF DEER ON THESE LANDS AND THE SOUTHWEST PORTION OF THIS AREA IN THE VICINITY OF BLOW OUT IS CONSIDERED TO BE WINTER DEER RANGE. BOTH THE EAGLE AND THE COLORADO RIVERS ARE GOOD TROUT WATERS. THE LACK OF PUBLIC ACCESS IN THE POSEY CREEK AREA MAKES IT VERY DIFFICULT TO GET A GOOD DEER HARVEST IN THAT AREA.

THE DISTRICT HAS CONSTRUCTED NUMEROUS STOCKWATER FACILITIES THROUGHOUT THIS AREA, AND HAS RESEEDED SEVERAL LARGE BLOCKS OF PUBLIC LANDS. THE SPARSE VEGETATION AND ROUGH AND ROLLING TOPOGRAPHY OF THIS AREA CONTRIBUTE TO DEFINITE EROSION HAZARDS.

GENERAL CONCLUSIONS A AND B DISCUSS THE VARIOUS POINTS SET FORTH ABOVE. IT IS DETERMINED THAT THE TRAIL GULCH PLANNING AREA IS A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT NO. 2)

PLANNING AREA NO. 15

HARDSCRABBLE LAND MANAGEMENT PROJECT

20,640	ACRES VACANT PUBLIC DOMAIN
1,840	ACRES WITHDRAWN
400	ACRES STATE
22,880	TOTAL

THE HARDSCRABBLE PLANNING AREA IS DUE SOUTH OF EAGLE, COLORADO. THE AREA IS BOUNDED ON THE NORTH BY THE EAGLE RIVER AND ON THE SOUTH BY THE WHITE RIVER NATIONAL FOREST. GYPSUM CREEK FORMS THE WEST BOUNDARY AND BRUSH CREEK THE EAST.

THE TERRAIN IS ROUGH AND ROLLING AND RISES STEEPLY FROM THE DRAINAGES. THE VEGETATION IS PREDOMINANTLY PINON-JUNIPER AND OAK BRUSH. THE UNDERSTORY IS PRIMARILY NATIVE GRASSES AND SAGEBRUSH AS FOUND IN SOME OF THE OPEN MOUNTAIN MOUNTAIN PARKS.

THE AREA SUPPORTS A SIZEABLE DEER HERD THAT IS AUGMENTED FROM THE HIGHER FOREST LANDS WHEN WINTER SETS IN. THIS IS ONE OF THE HEAVIEST HUNTED AREAS IN THE UNIT. PROPER HUNTER DISTRIBUTION IS DIFFICULT TO OBTAIN BECAUSE OF THE LACK OF ROADS.

THE DISTRICT HAS A FEW STOCKWATER IMPROVEMENTS IN THIS AREA, AND A LARGE TIMBER MANAGEMENT AREA IS DESIGNATED ON THE NATIONAL LAND RESERVE ALONG THE FOREST BOUNDARY.

GENERAL CONCLUSIONS A AND B ARE APPLICABLE TO THESE LANDS AND THE HARDSCRABBLE PLANNING AREA IS DETERMINED TO BE A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT No. 2)

PLANNING AREA No. 16

BELLYACHE MOUNTAIN LAND MANAGEMENT PROJECT

32,640 ACRES PUBLIC DOMAIN
3,960 ACRES WITHDRAWAL
3,840 ACRES STATE

40,440 TOTAL

THE BELLYACHE PLANNING AREA LIES EAST OF EAGLE, COLORADO, AND CONTINUES EAST TO THE VICINITY OF MINTURN, COLORADO. THE EAGLE RIVER TRAVERSES THE AREA FROM SOUTHEAST TO NORTHWEST.

THE TERRAIN IS ROUGH AND ROLLING IN THE WEST PORTION OF THE AREA AND IS COVERED MAINLY WITH PINON-JUNIPER AND OAKBRUSH. THE SOILS IN THIS AREA ARE UNSTABLE AND CONSTITUTE A DEFINITE EROSION HAZARD BECAUSE OF THE SPARSE VEGETATIVE TYPES AND THE STEEP RELIEF OF THE TERRAIN. THE VEGETATIVE TYPE GRADES INTO ASPEN AND LODGEPOLE PINE AT THE HIGHER ELEVATIONS.

THE DISTRICT HAS DESIGNATED TIMBER MANAGEMENT AREAS IN T. 5 W., R. 81 W., SECTIONS 14, 26 AND 34, AND HAS TWO LARGE RESEEDINGS IN T. 4 S., R. 83 W., AND FIVE RESEEDINGS IN T. 3 AND 4 S., R. 83 W. SEVERAL STOCKWATER DEVELOPMENTS ARE LOCATED IN THE SAME TOWNSHIPS.

THE ROUTE OF THE INTERSTATE HIGHWAY WILL FOLLOW THE COLORADO RIVER THROUGH MOST OF THIS AREA. FEDERAL LANDS THAT WILL BE ON THE RIGHT-OF-WAY SHOULD BE DESIGNATED FOR THE PURPOSE OF THE ROAD.

IT IS DETERMINED THAT THE BELLYACHE MOUNTAIN AREA IS A LAND MANAGEMENT PROJECT.

APPROVED:

NAME TITLE DATE

GREEN MOUNTAIN RESERVOIR ON THE BLUE RIVER

NATIONAL LAND RESERVE CROSSED BY THE BLUE RIVER

EAGLE RIVER MASTER UNIT

(DENVER DISTRICT UNIT No. 2)

PLANNING AREA No. 17-A

WHITE RIVER NATIONAL FOREST PLANNING AREA

21,200 ACRES NATIONAL FOREST
840 ACRES VACANT
120 ACRES STATE

22,160 TOTAL

THIS IS AN ISOLATED TOWNSHIP OF NATIONAL FOREST LAND IN THE MIDST OF THE NATIONAL LAND RESERVE IN THE EAGLE RIVER UNIT.

THE PRIMARY VEGETATION IS ASPEN AND DEAD SPRUCE AND OPEN GRASSLAND-SAGEBRUSH PARKS ON THE NORTH AND EAST SIDE OF THE TOWNSHIP. (SEE PULPWOOD OPPORTUNITIES MAP) THIS ISOLATED SEGEMENT OF THE WHITE RIVER NATIONAL FOREST INVADES A LARGE CONCENTRATION OF THE NATIONAL LANDS RESERVE. THE INTRUSION OF THIS TOWNSHIP INTO THE MIDST OF THE EAGLE RIVER MANAGEMENT AREA PLACES THE FOREST SERVICE ON LANDS THAT COULD BE SERVICED BY THE BUREAU OF LAND MANAGEMENT IN CONJUNCTION WITH OUR ADJOINING LANDS.

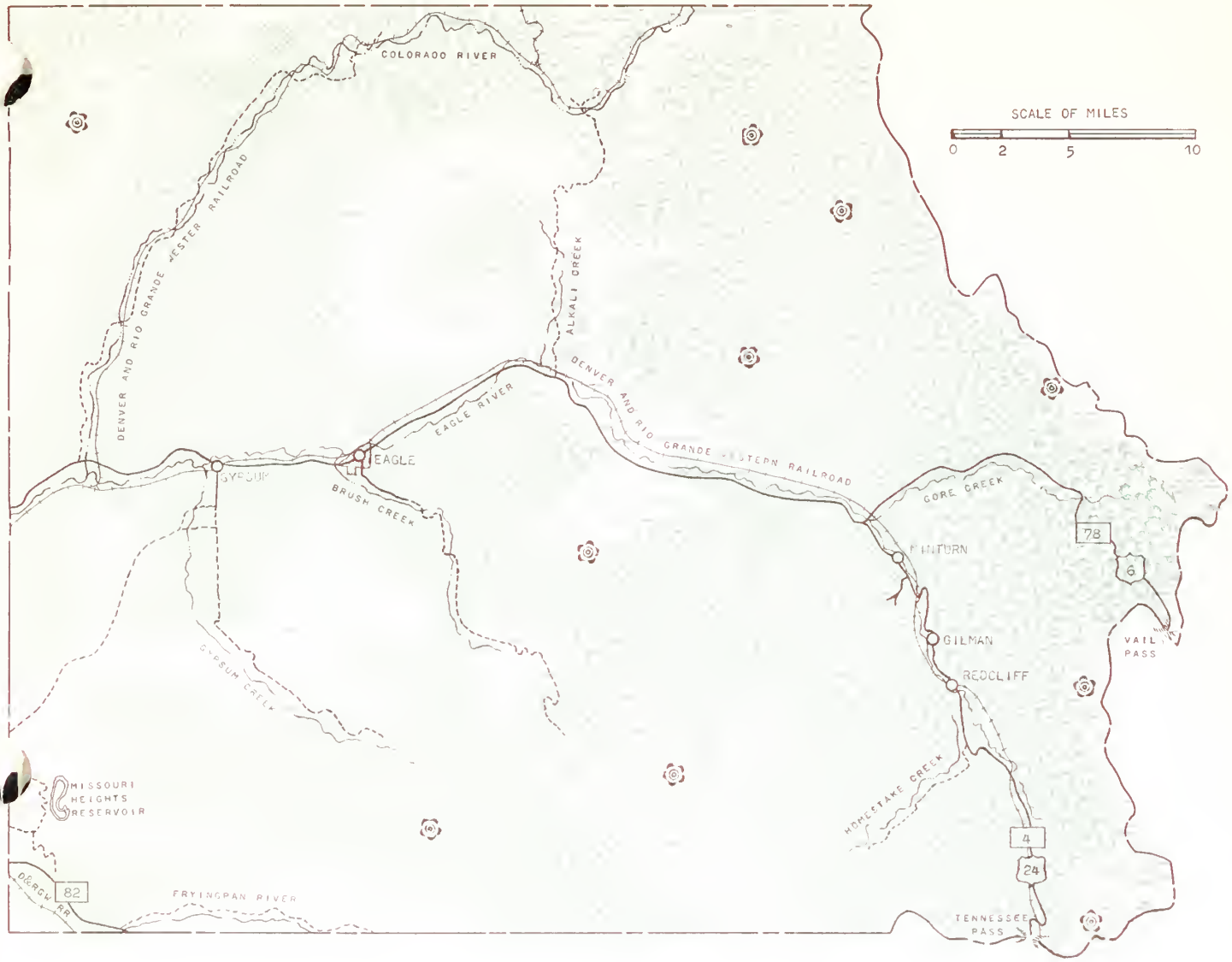
CORRESPONDINGLY, THE BUREAU OF LAND MANAGEMENT IS NOW ADMINISTERING A LONG, NARROW STRING OF ISOLATED TRACTS OF NATIONAL LANDS RESERVE LOCATED ON EACH SIDE OF THE BLUE RIVER FROM THE GREEN RIVER RESERVOIR TO BRECKENRIDGE, COLORADO. THESE NATIONAL LAND RESERVE LANDS INVADE AN AREA THAT IS SUITABLE FOR MANAGEMENT BY THE FOREST SERVICE. THESE LANDS WOULD PROVIDE ACCESS FROM THE NATIONAL FOREST TO STATE HIGHWAY 9 AND THE BLUE RIVER.

THERE IS STRONG FEELING AT THE FIELD LEVEL THAT NEGOTIATIONS BETWEEN THE FOREST SERVICE AND THE BUREAU OF LAND MANAGEMENT SHOULD BE INITIATED TO CONSIDER THE POSSIBILITY OF EXCHANGING THE MENTIONED NATIONAL RESERVE LANDS FOR THE WHITE RIVER NATIONAL FOREST LANDS IN T. 3 S., R. 84 W.

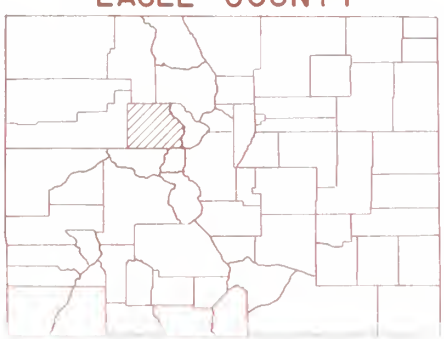
IT IS DETERMINED THAT PLANNING AREAS 17-A AND 17-B ARE TITLE TRANSFER AREAS. SUPPORTING DATA ON THE NATURE OF THE LANDS IN AREA 17-B IS PRESENTED IN THE BLUE RIVER MASTER UNIT SECTION.

APPROVED:

NAME TITLE DATE



EAGLE COUNTY

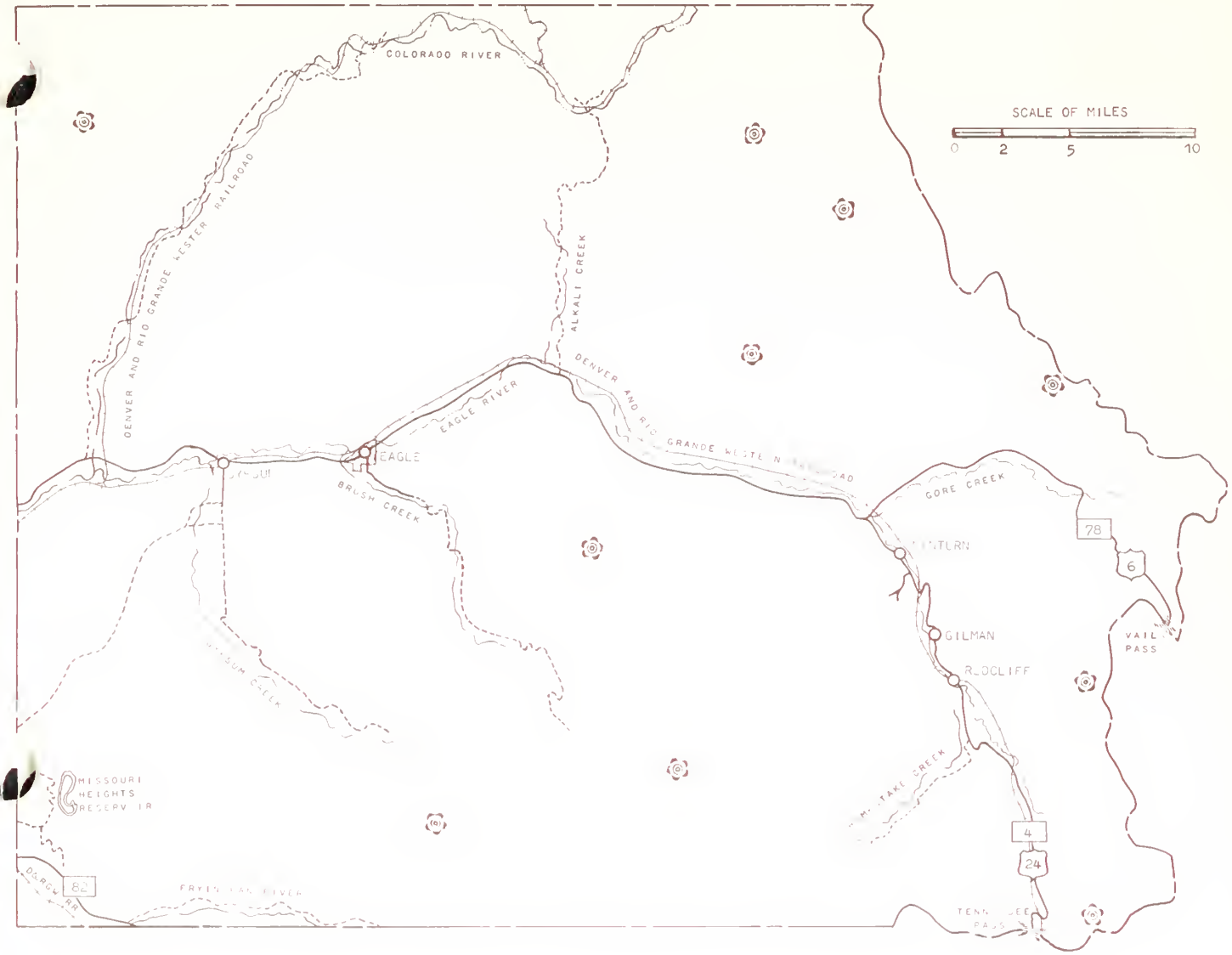


STATE-COUNTY KEY

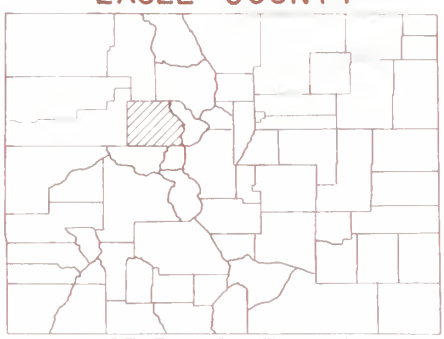
GENERAL LEGEND

- County Line
- Creek or River
- Railroad
- Major State or Federal Highway
- Secondary Road
- Mountainous Area

PREPARED BY THE BUREAU OF BUSINESS RESEARCH UNIVERSITY OF COLORADO, BOULDER, COLORADO



EAGLE COUNTY



STATE-COUNTY KEY

GENERAL LEGEND

- County Line
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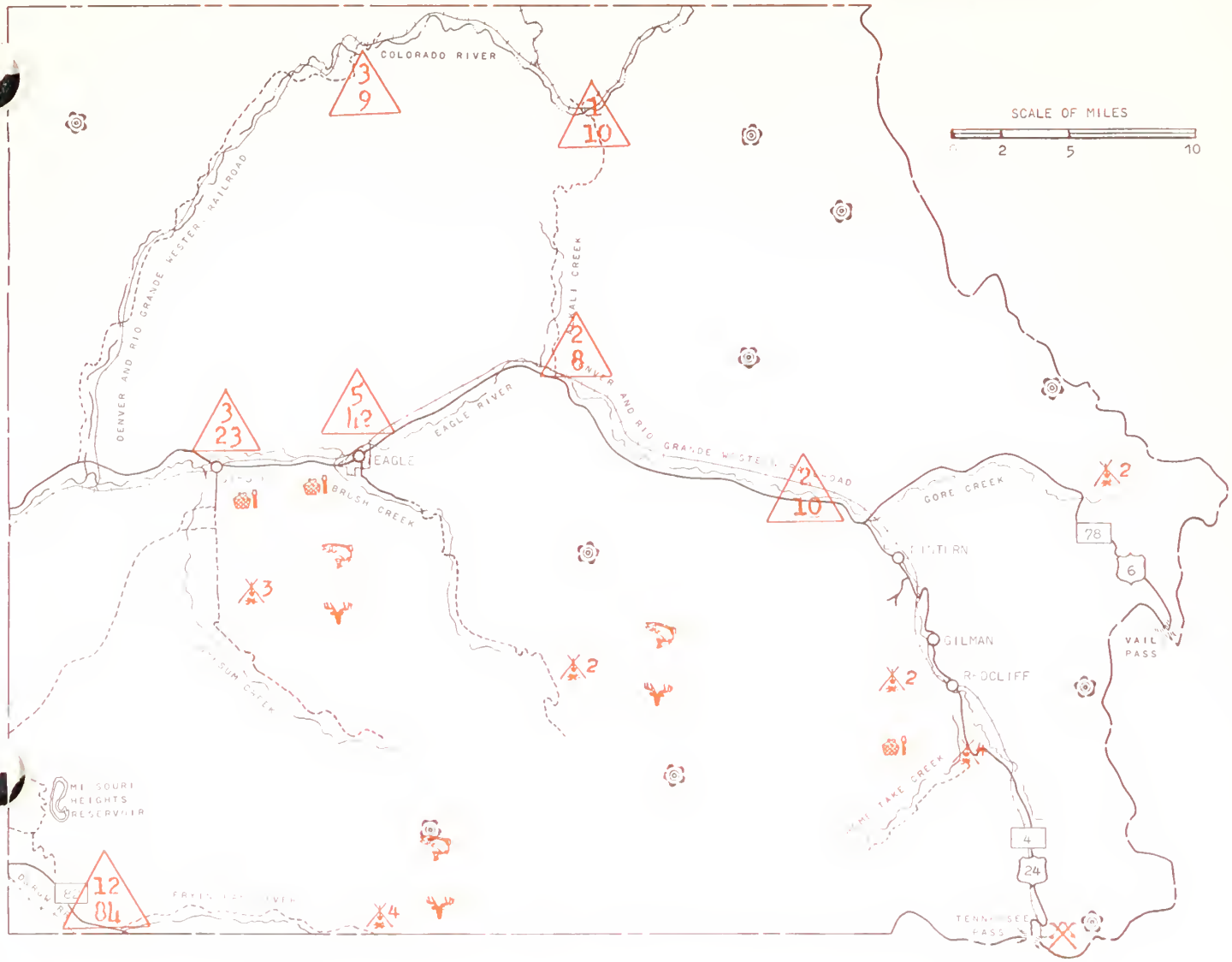
TOURIST RESOURCES AND ACCOMMODATIONS

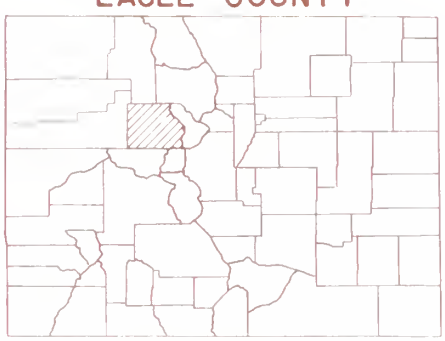


EAGLE COUNTY

ACCOMMODATION LEGEND

14 / 78 — COMMERCIAL TOURIST ACCOMMODATIONS OF ALL TYPES. UPPER FIGURE INDICATES NUMBER OF ESTABLISHMENTS; LOWER ONE, NUMBER OF ROOMS OR UNITS.

5 — LOCATION OF CAMPGROUND. THE FIGURE INDICATES NUMBER OF CAMPSITES.



STATE-COUNTY KEY

TOURIST RESOURCE LEGEND

- FISHING
- HUNTING
- CAMPING
- PICNICKING
- SKIING

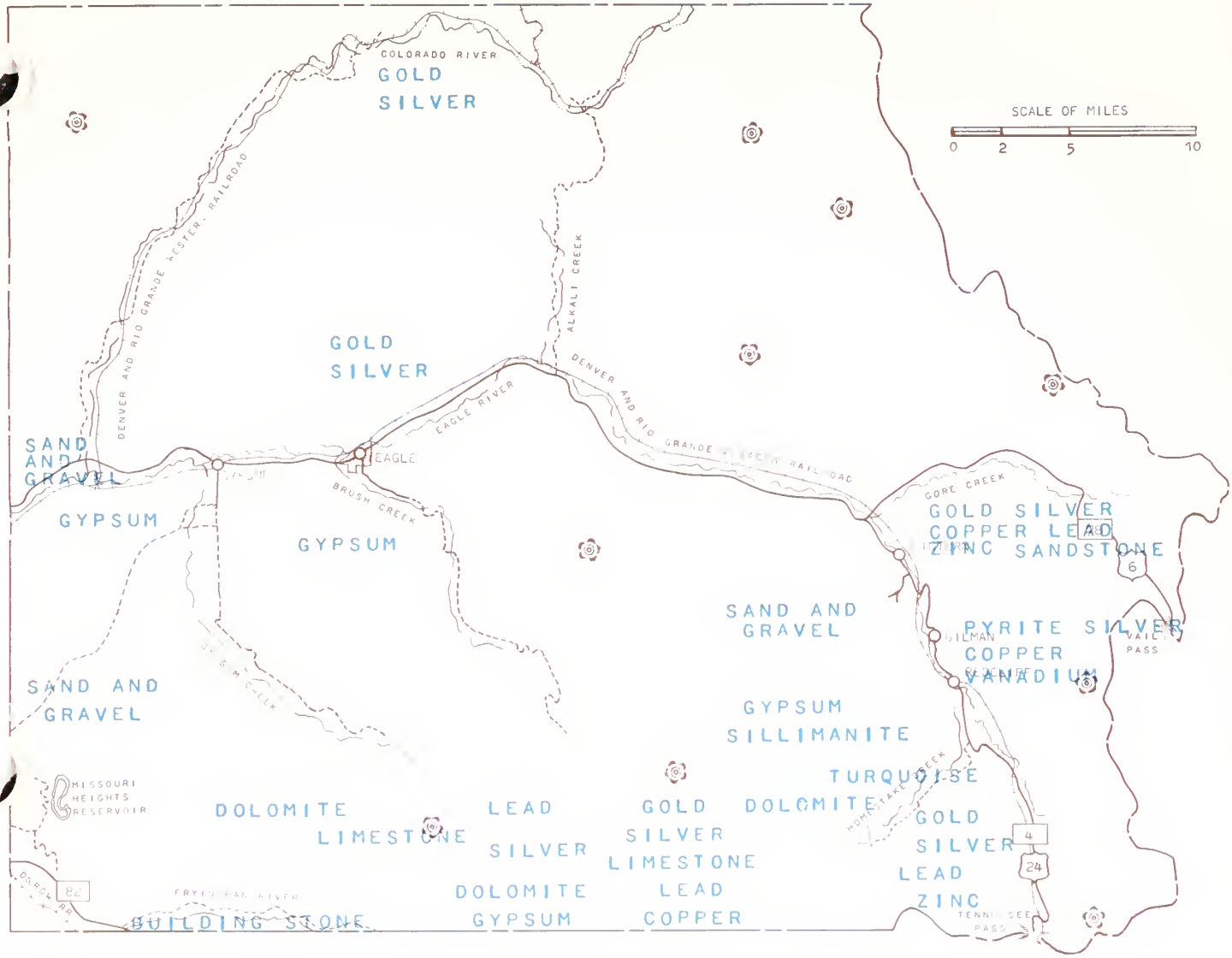
GENERAL LEGEND

- COUNTY LINE
- CREEK OR RIVER
- RAILROAD
- MAJOR STATE OR FEDERAL HIGHWAY
- SECONDARY ROAD
- MOUNTAINOUS AREA

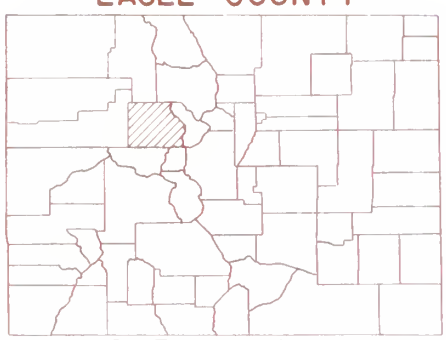
PREPARED FROM INFORMATION OBTAINED FROM THE U. S. FOREST SERVICE AND SIMILAR AGENCIES AND FIELD WORK UNDERTAKEN BY BUREAU STAFF.

PREPARED BY THE BUREAU OF BUSINESS RESEARCH UNIVERSITY OF COLORADO, BOULDER, COLORADO

MINERAL RESOURCES AND MINING DISTRICTS



EAGLE COUNTY



STATE-COUNTY KEY

GENERAL LEGEND

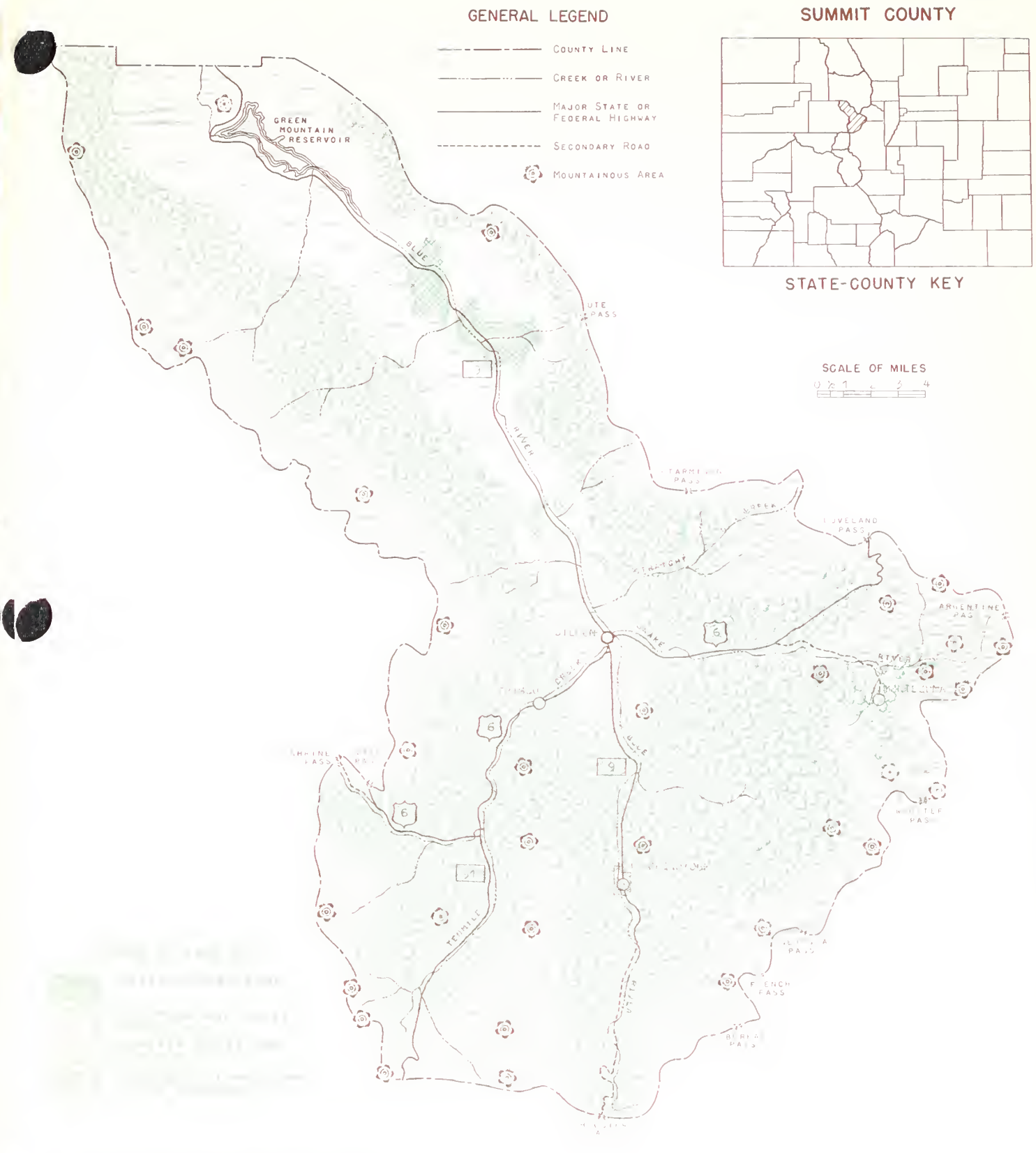
- County Line
- Creek or River
- Railroad
- Major State or Federal Highway
- Secondary Road
- Mountainous Area

PREPARED FROM INFORMATION OBTAINED FROM THE STATE MINERAL RESOURCES BOARD, OIL AND GAS CONSERVATION COMMISSION, SCHOOL OF MINES, AND COAL MINE INSPECTOR.

PREPARED BY THE BUREAU OF BUSINESS RESEARCH UNIVERSITY OF COLORADO, BOULDER, COLORADO

Notes

LAND USE



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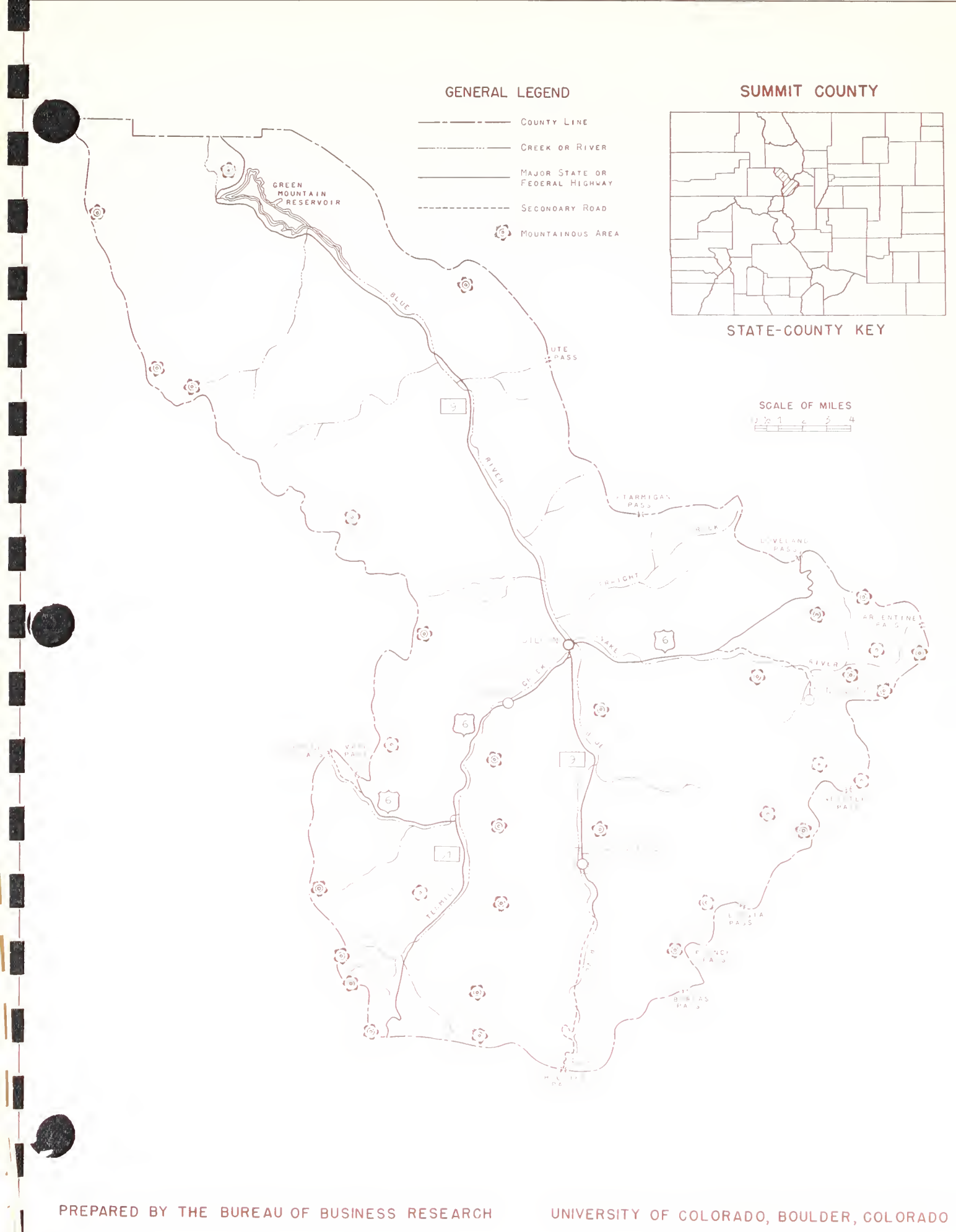

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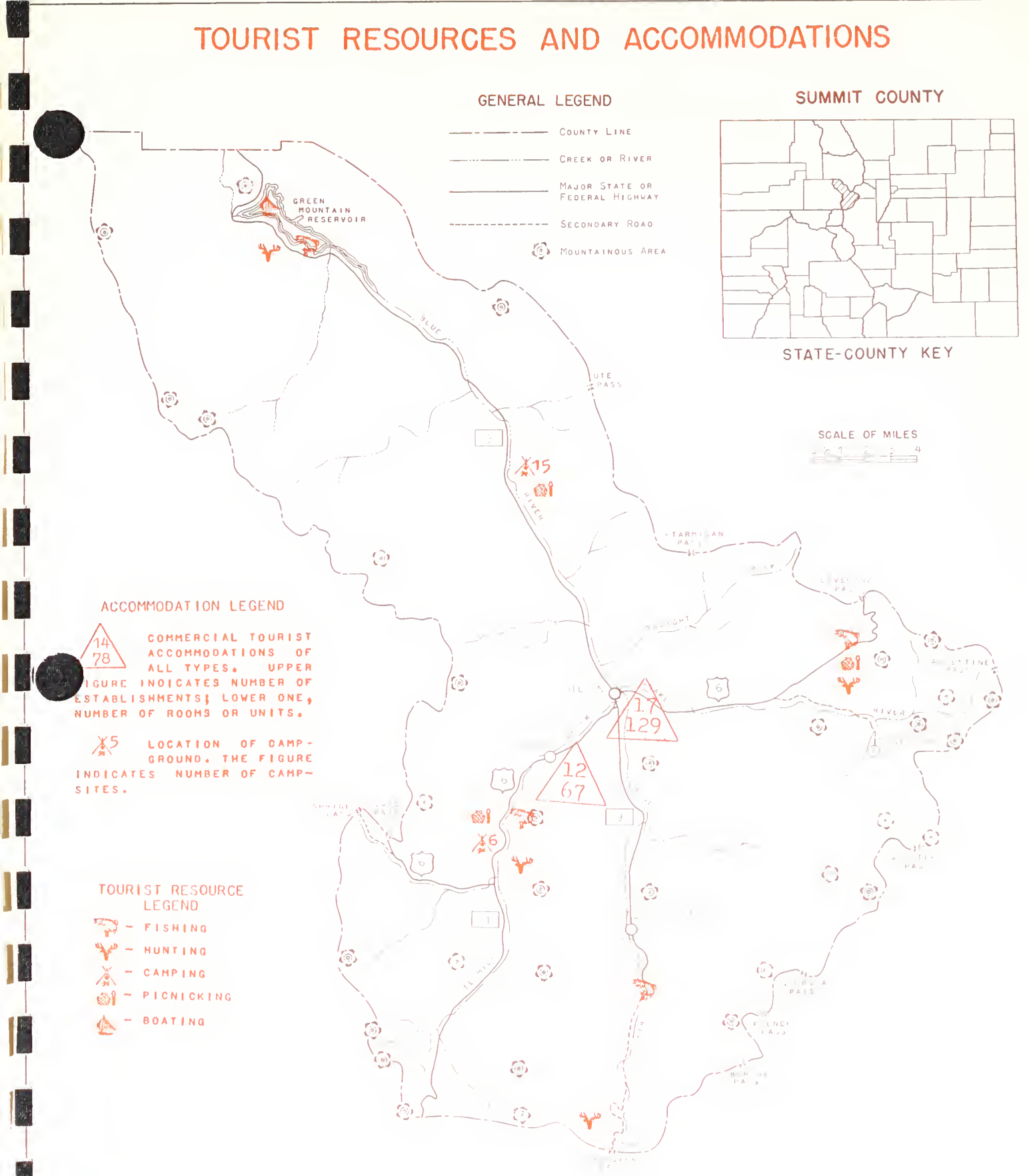
TOURIST RESOURCES AND ACCOMMODATIONS



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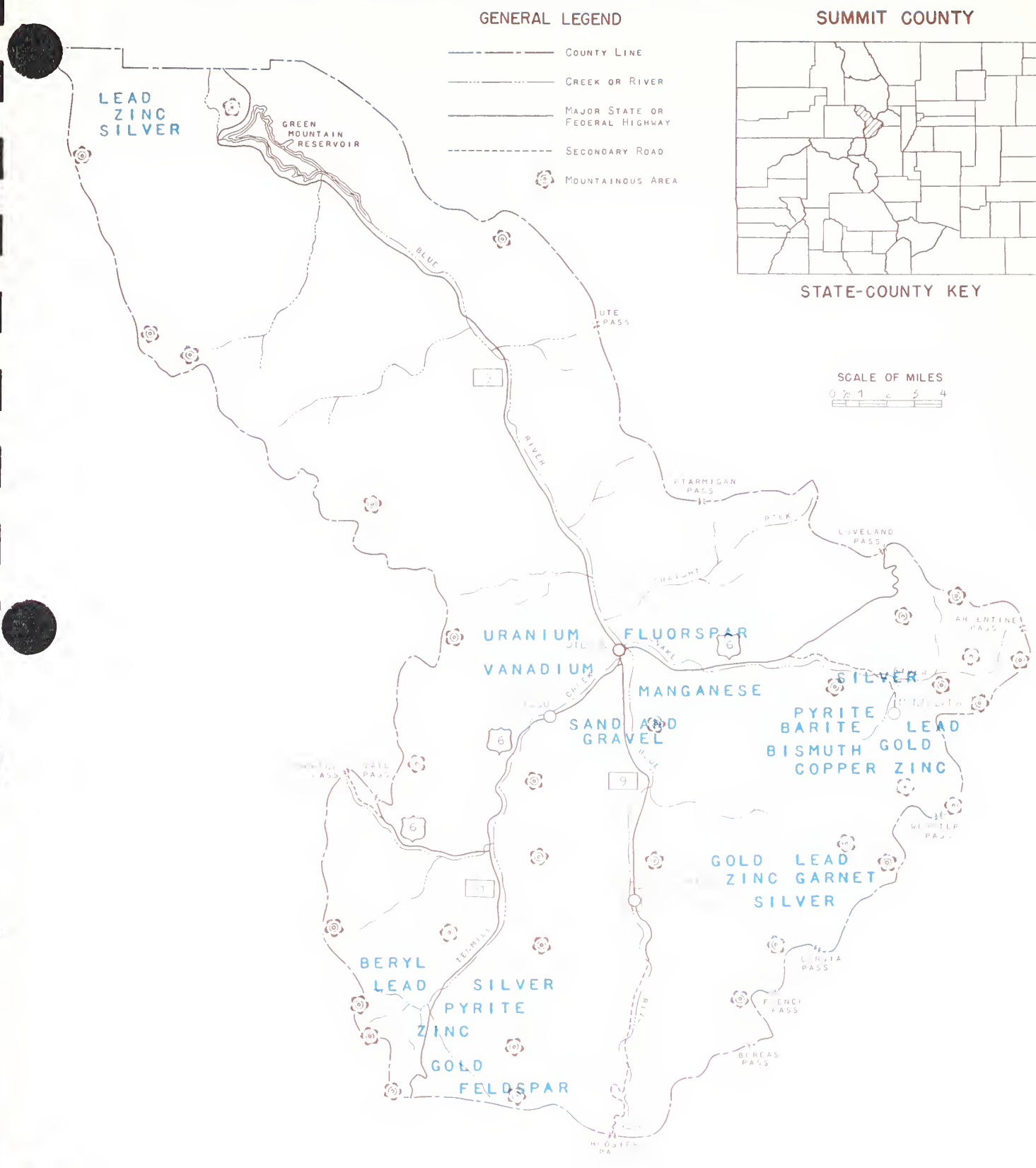
MINERAL RESOURCES AND MINING DISTRICTS



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PREPARED BY THE BUREAU OF BUSINESS RESEARCH UNIVERSITY OF COLORADO, BOULDER, COLORADO

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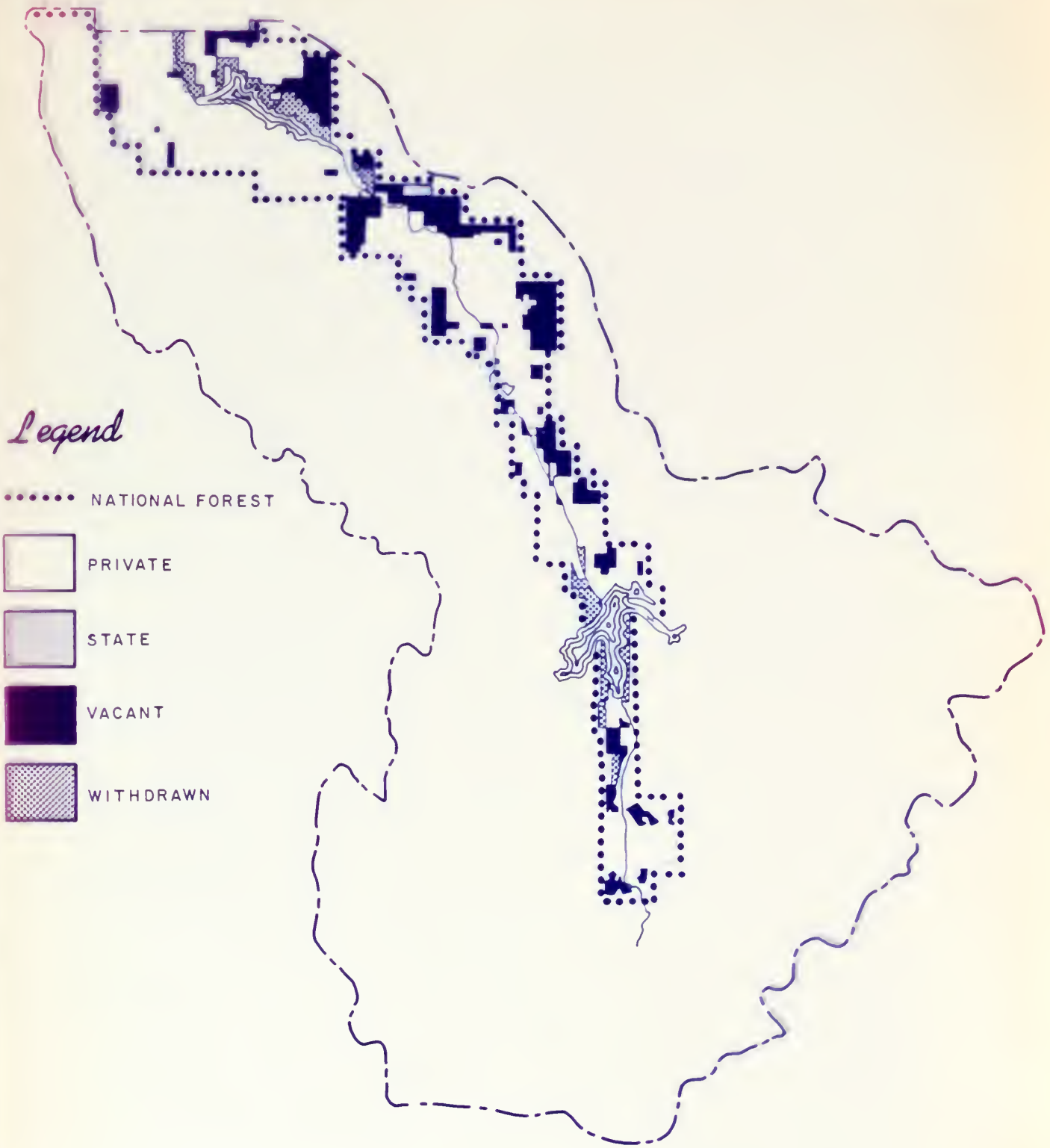
RESOURCE MGT. DIV.
DENVER FEDERAL CENTER
P.O. BOX 25047
DENVER, CO 80225

Blue River Master Unit

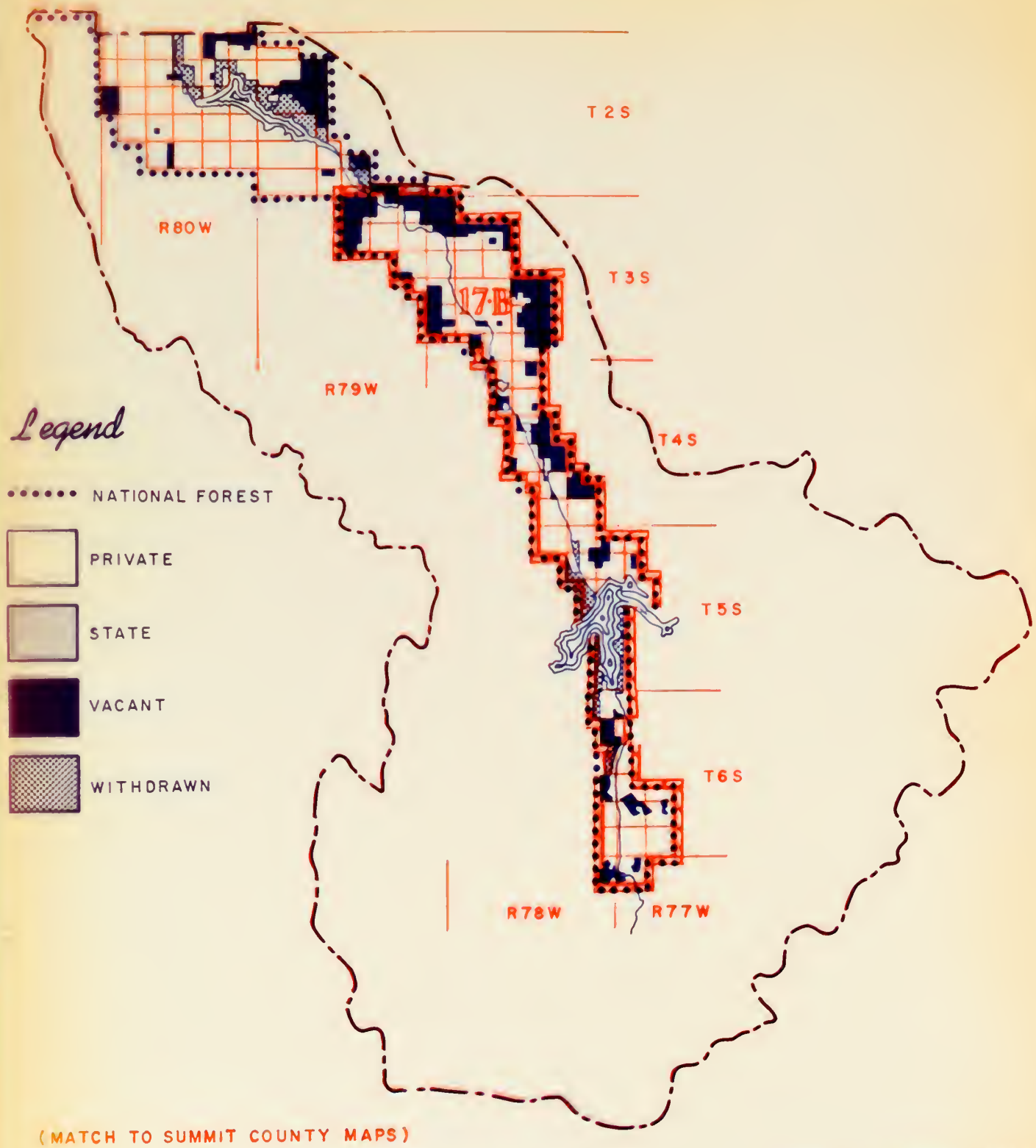
Land Status



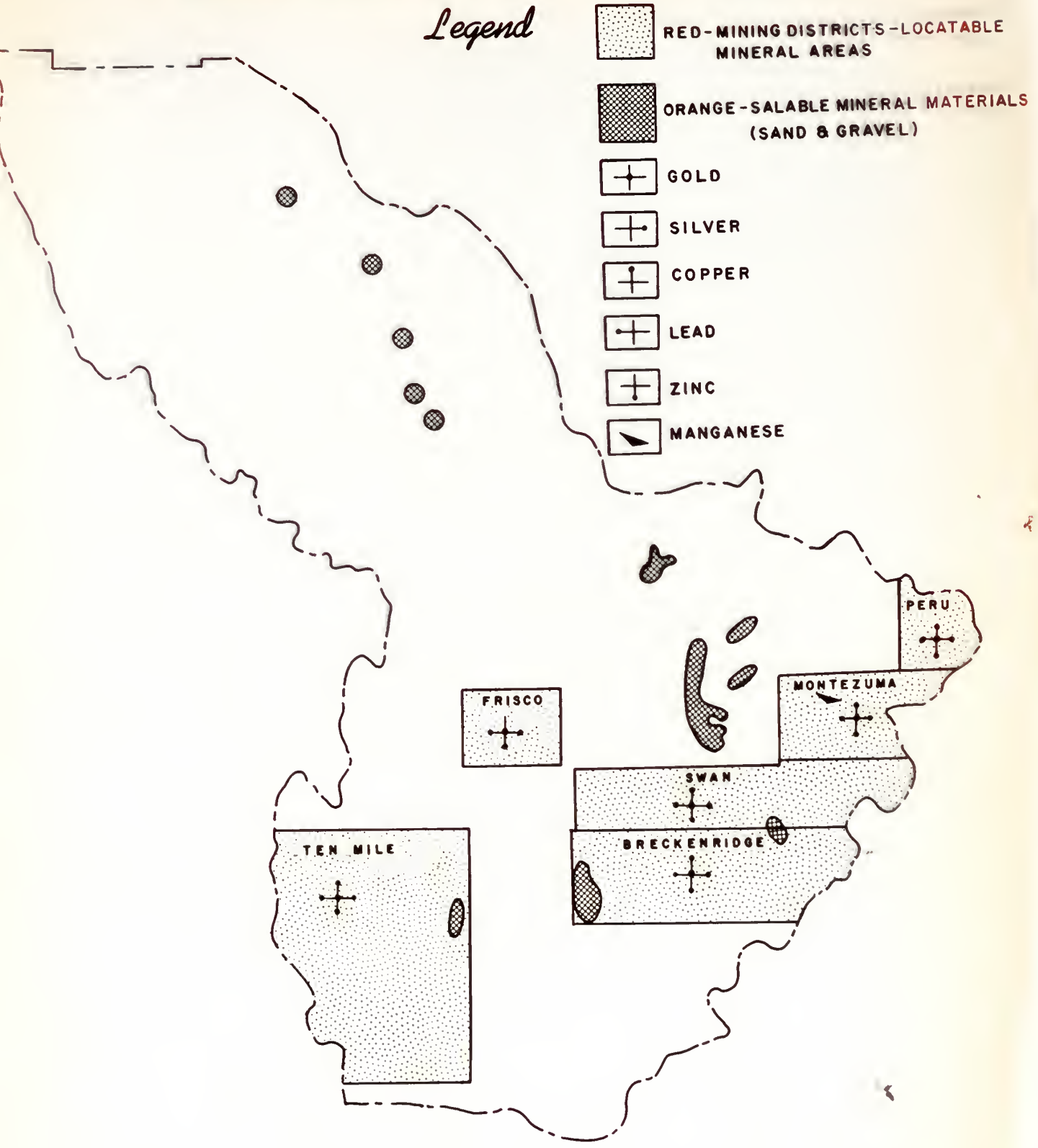
T2S
T3S
T4S
T5S
T6S
R80W
R79W
R78W
R77W
17B
(MATCH TO SUMMIT COUNTY MAPS)
PLANNING AREAS
DISTRICT BOUNDARIES

Blue River Master Unit

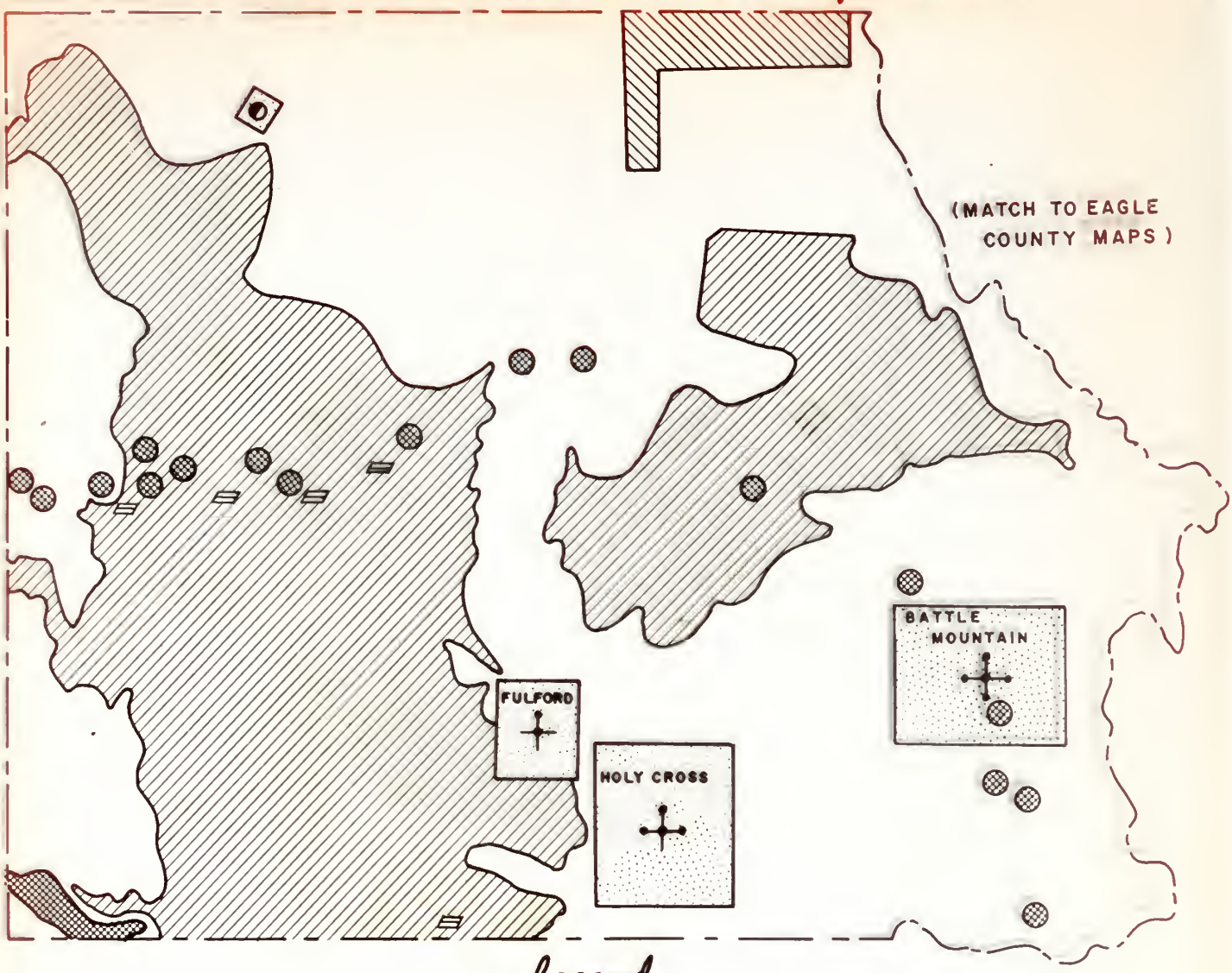
Land Status



Mineral Resources And Mining Districts



Mineral Resources And Mining Districts



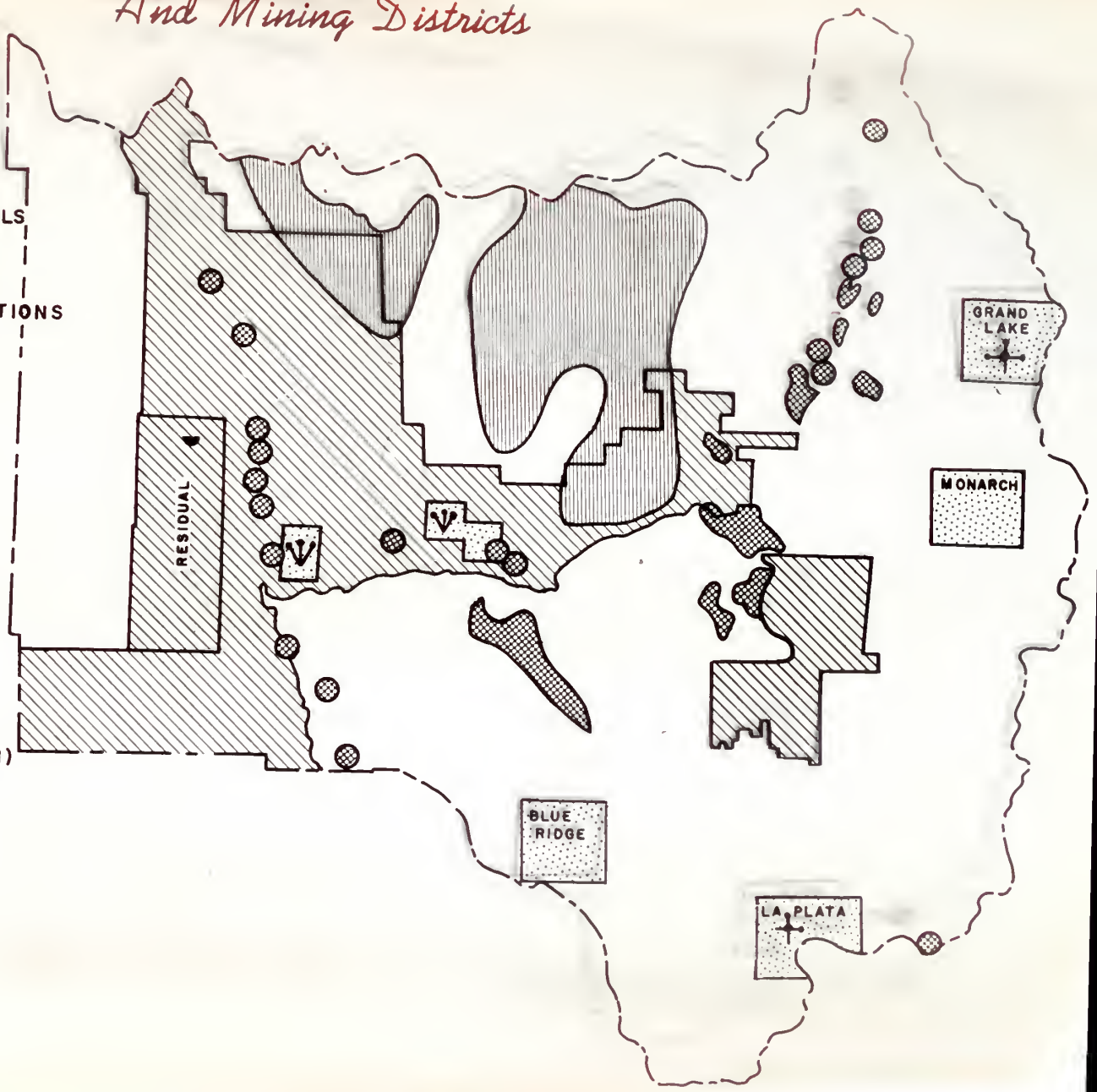
Legend

- RED - MINING DISTRICT LOCATABLE MINERAL AREAS
- ORANGE - SALABLE MINERAL MATERIALS (SAND & GRAVEL)
- MAROON - AREA OF ROCK GYPSUM DEPOSITS
- BROWN - AREA OF PL 167 DETERMINATIONS
- GOLD
- SILVER
- COPPER
- LEAD
- ZINC
- BARITE
- ROCK GYPSUM OUTCROPS

Mineral Resources And Mining Districts

Legend

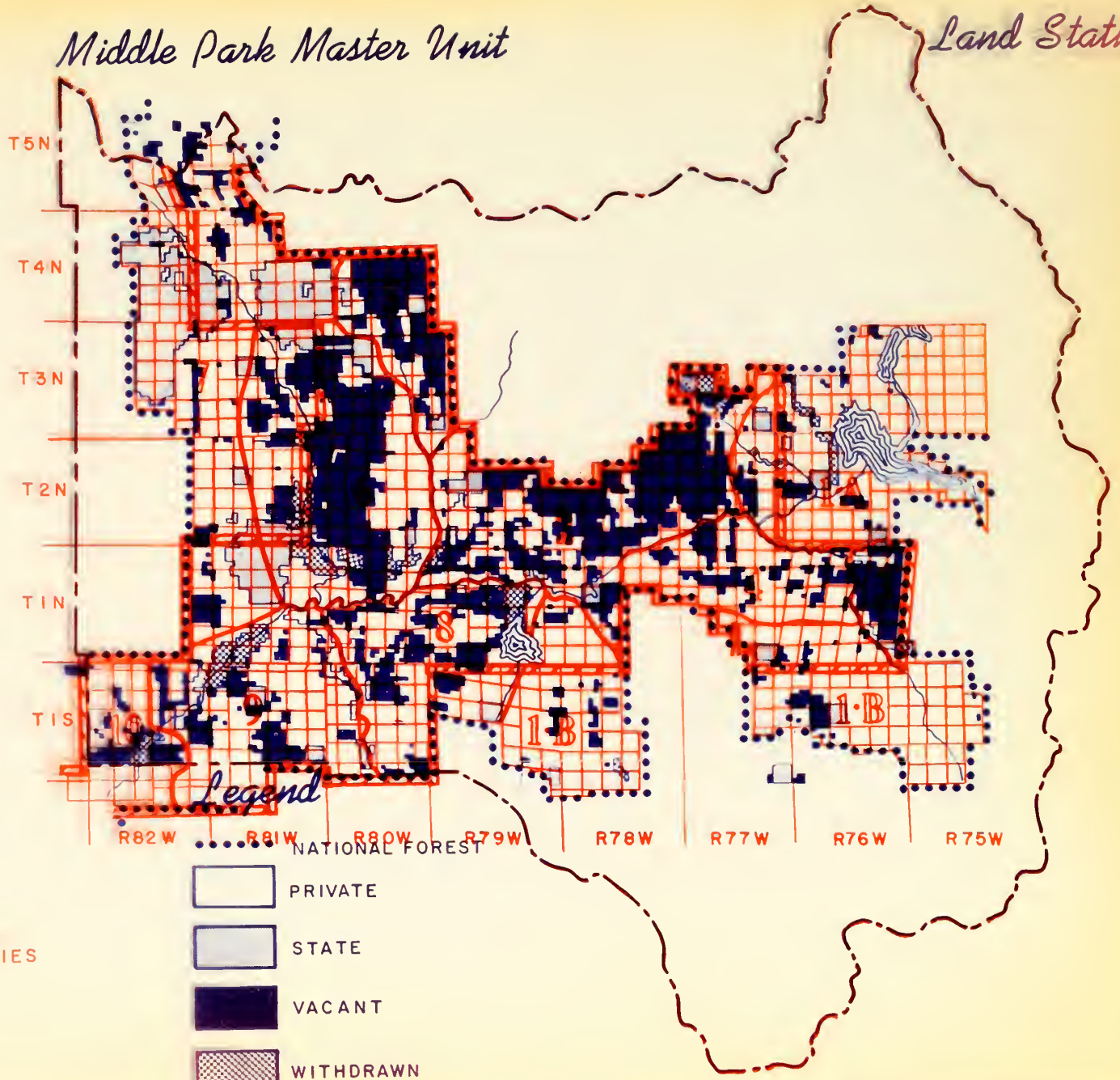
- RED – MINING DISTRICT – LOCATABLE MINERAL AREAS
- GREEN – LEASABLE MINERALS OTHER THAN OIL & GAS (SUB-BITUMINOUS COAL)
- ORANGE – SALABLE MINERAL MATERIALS (SAND & GRAVEL)
- BROWN – AREA OF PL167 DETERMINATIONS
- GOLD
- SILVER
- COPPER
- LEAD
- CLAY
- GILSONITE
- FISSION SOURCE MATERIAL (URANIUM)



(MATCH TO GRAND COUNTY MAPS)

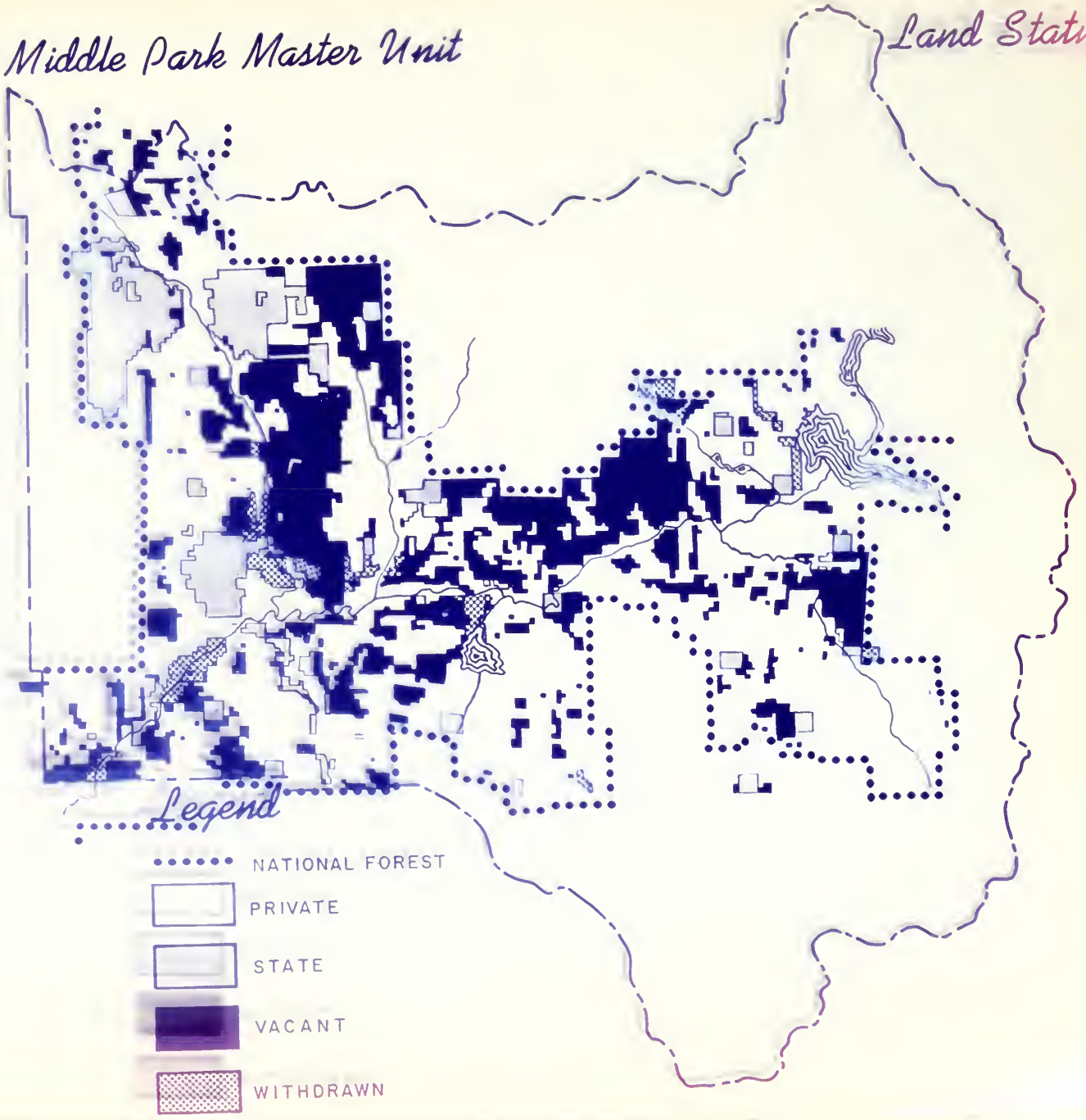
Middle Park Master Unit

Land Status



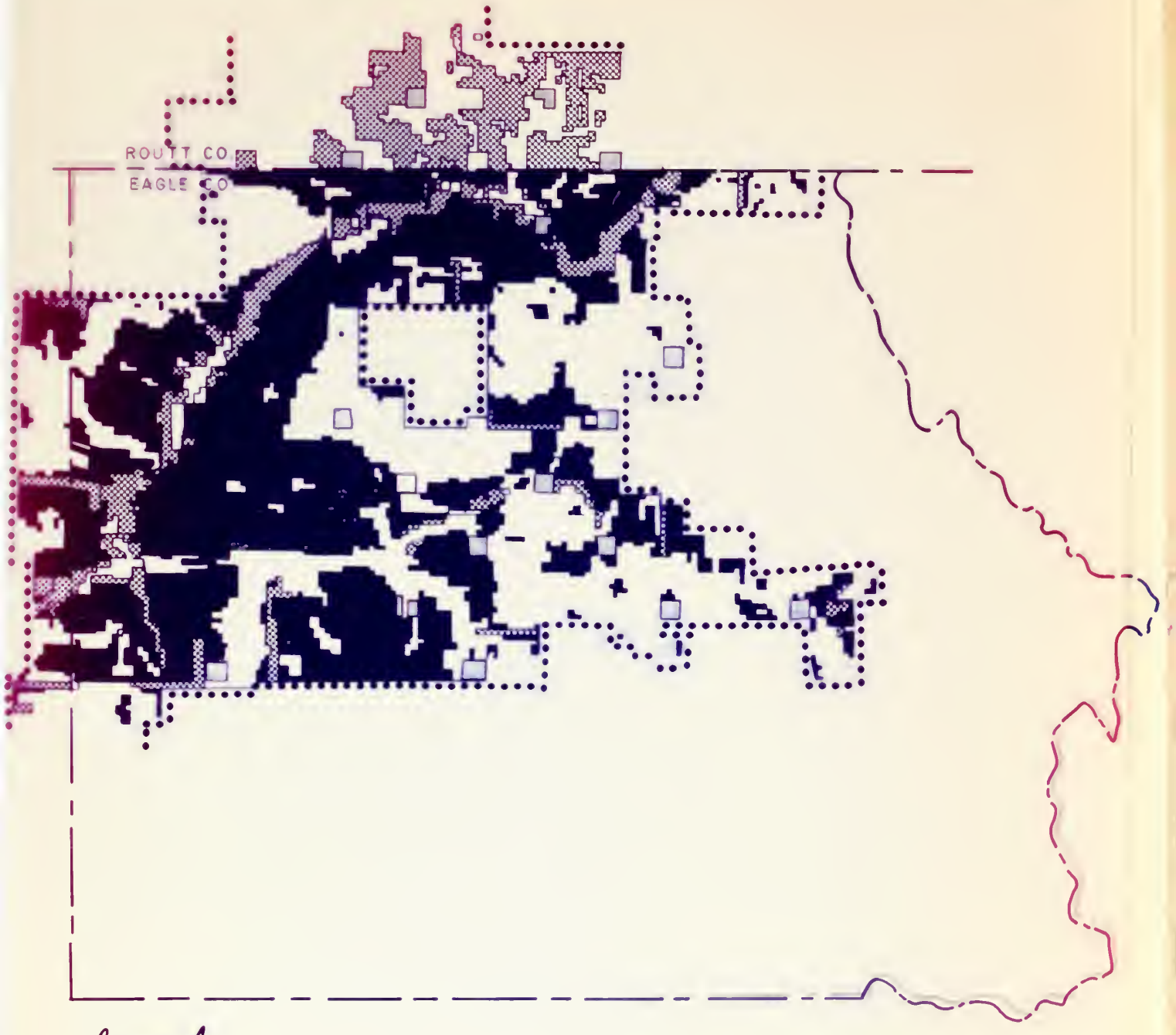
Middle Park Master Unit

Land Status



Eagle River Master Unit

Land Status



Legend

- NATIONAL FOREST
- PRIVATE
- STATE
- VACANT
- WITHDRAWN

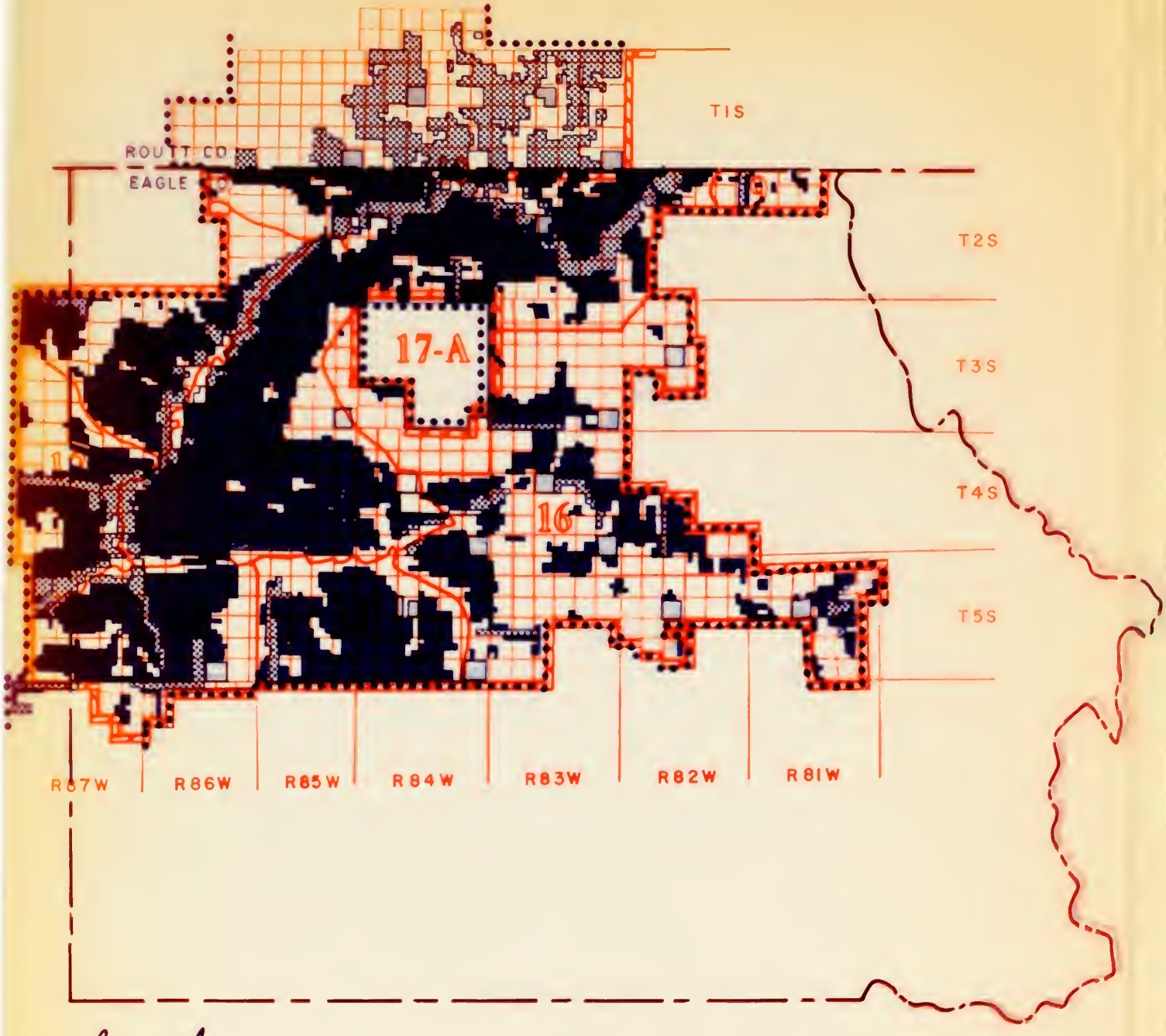
PLANNING AREAS

DISTRICT BOUNDARIES

(MATCH TO EAGLE COUNTY MAPS)

Eagle River Master Unit

Land Status



Legend

- NATIONAL FOREST
- PRIVATE
- STATE
- VACANT
- WITHDRAWN

(MATCH TO EAGLE COUNTY MAPS)

- PLANNING AREAS
- DISTRICT BOUNDARIES

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